








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Chip Inductor






◆RF Inductor

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◆EMI-Bead

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◆EMI-Common Mode Filter







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◆Power Inductor



Type	Style	Features	Series	Page
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Power Inductor








◆Miniature

Type	Dimension	Inductance						Rated DC Current(A)					Page
		0.1uH	1uH	10uH	100uH	1mH	10mH	10mA	100mA	1A	10A	100A	
VLH 	3.2 x 2.5 x 1.55 ~ 5.7 x 5.0 x 4.7	—————						—————					113
SDIA 	3.0 x 1.0 ~ 8.0 x 4.2		—————					—————				118	
SDIA..A 	3.0 x 1.5 ~ 6.0 x 4.5		—————					—————			220		
SDIA-G 	2.5 x 1.25 ~ 6.0 x 4.5	—————								—————		125	
SDIM 	2.0 x 1.0 ~ 4.0 x 1.2	—————								—————		133	
MLP(H) 	2.0 x 1.2 x 1.0~ 2.5 x 2.0 x 1.2	—————						—————			136		




◆Non-Shielded

Type	Dimension	Inductance						Rated DC Current(A)					Page
		0.1uH	1uH	10uH	100uH	1mH	10mH	10mA	100mA	1A	10A	100A	
PD 	6.6 x 4.45 x 2.92~ 18.54 x 15.24 x 7.11	—————								—————			141
PCD 	3.5 x 3.0 x 1.15~ 10.0 x 9.0 x 7.5		—————						—————			146	

◆Shielded



Type	Dimension	Inductance						Rated DC Current(A)					Page
		0.1uH	1uH	10uH	100uH	1mH	10mH	10mA	100mA	1A	10A	100A	
PS 	6.60 x 4.45 x 2.92 12.95 x 9.40 x 5.21 18.54 x 15.24 x 7.62		—————						—————			157	
PCS 	6.2 x 6.6 x 3.0 ~ 12.0 x 12.0 x 8.0		—————						—————			160	
PCDR 	6.0 x 2.8 ~ 12.5 x 7.5		—————						—————			170	
PSDB 	6.2 x 6.3 x 3.0 ~ 10.3 x 10.4 x 5.0		—————						—————			175	
SCDS 	3.8 x 3.8 x 2.0~ 6.7x 6.7 x 4.0		—————						—————		180		
SDRH 	8.0 x 8.0 x 4.5		—————						—————		186		
SDA 	4.4 x 1.9 ~ 16.5 x 12.7	—————						—————			187		

◆Shielded

Type	Dimension	Inductance										Rated DC Current(A)			Page	
		0.1uH	1uH	10uH	100uH	1mH	10mH	10mA	100mA	1A	10A	100A				
SDA..A 	6.9×2.8 ~	█												█	225	
SDB 	4.1×2.1 ~ 13.0×6.5	█												█		192
SDN 	4.2×1.0 ~ 10.0×3.8	█												█		198








Environmental Specifications (SMD)----- 202

◆Dip Power Choke

Type	Dimension	Inductance										Rated DC Current(A)			Page
		0.1uH	1uH	10uH	100uH	1mH	10mH	10mA	100mA	1A	10A	100A			
DRGH 	6.0 x 6.5 x 4.0~ 10.0 x 10.5 x 3.5			█						█					203
DRGR 	6.0 x 6.5 x 4.0~ 10.5 x 10.5 x 3.5			█						█					209

Environmental Specifications (DIP)----- 212

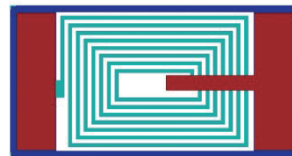
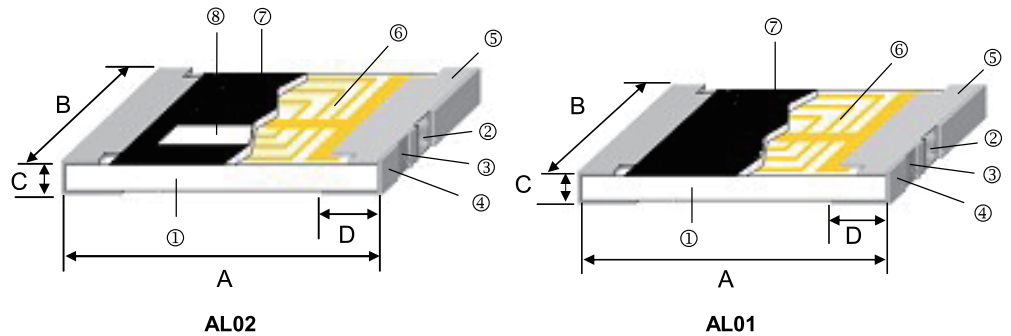
◆Automotive Grade

Type	Style	Features	Series	Page
Multilayer		Automotive Grade Multilayer Common Mode Filter	CMX..A	213
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Packaging Information----- 253

Thin Film Chip Inductor – AL Series

Construction



① Alumina Substrate	④ External Electrode	⑦ Overcoat
② Inner Electrode	⑤ Edge Electrode	⑧ Marking
③ Barrier Layer	⑥ Cu Circuits	

Features

- Photolithographic single layer ceramic chip
- High SRF, excellent Q, superior temperature stability
- Tight tolerance of $\pm 1\%$ or $\pm 0.1\text{nH}$
- Self resonant frequency controlled within 10%
- Stable inductance in high frequency circuit
- Highly stable design for critical needs

Dimensions

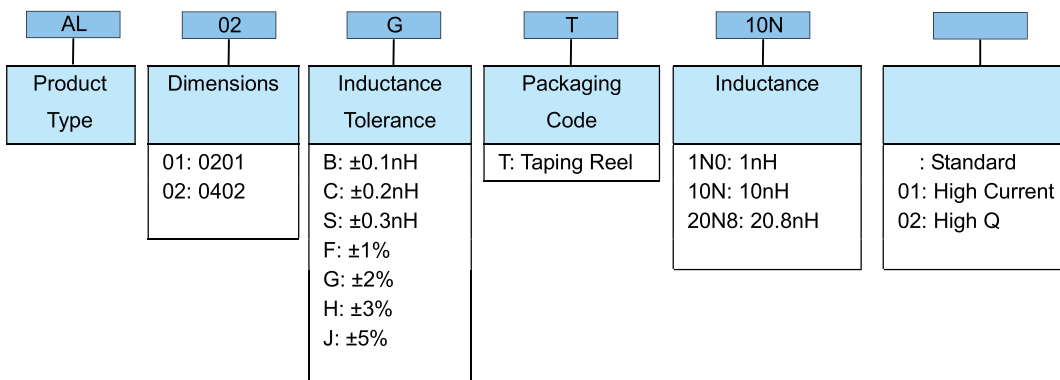
Unit: mm

Type	Size (Inch)	A	B	C	D	Weight (g) (1000pcs)
AL01	0201	0.60 \pm 0.05	0.30 \pm 0.05	0.23 \pm 0.05	0.15 \pm 0.05	0.23
AL02	0402	1.0 \pm 0.05	0.5 \pm 0.05	0.32 \pm 0.05	0.2 \pm 0.10	0.9

Applications

- Cellular Telephone, Pagers and GPS Products
- VCO, TCXO Circuit and RF Transceiver Module
- Wireless LAN, Bluetooth Module, Communication Appliances

Part Numbering



■ Viking is capable of manufacturing the optional spec based on customer's requirement.

Standard Electrical Specifications

AL01 Chip Inductors / Standard Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	±0.1nH	8 / 500MHz	9	0.20	400
0.2	±0.1, 0.2nH	8 / 500MHz	9	0.20	400
0.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.20	400
0.4	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.6	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350
0.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
0.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
0.9	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
1.0	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.30	300
1.1	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.35	300
1.2	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.35	300
1.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.4	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250
1.6	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
1.9	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200
2.0	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.1	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.2	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.70	200
2.3	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.4	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.5	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.6	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.7	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.80	150
2.8	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
2.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.0	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.1	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.2	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.3	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.00	150
3.4	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.5	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.6	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.7	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.8	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
3.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
4.0	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.20	150
4.4	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.30	140
4.7	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.40	130
4.9	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.60	130
5.6	±2, ±3, ±5%	8 / 500MHz	4	1.80	130
6.1	±2, ±3, ±5%	8 / 500MHz	4	2.00	120
6.8	±2, ±3, ±5%	8 / 500MHz	4	2.30	110
7.4	±2, ±3, ±5%	8 / 500MHz	4	2.80	110
8.2	±2, ±3, ±5%	8 / 500MHz	3	3.00	110
9.1	±2, ±3, ±5%	8 / 500MHz	3	3.25	100
9.2	±2, ±3, ±5%	8 / 500MHz	3	3.25	100
10	±2, ±3, ±5%	8 / 500MHz	2	3.50	80

■ Operating Temperature Range: -55°C to +125°C

■ Test Equipment: HP4287A+Agilent 16196C

AL01-01 Chip Inductors / High Current Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	± 0.1 nH	10 / 500MHz	6	0.05	600
0.2	$\pm 0.1, 0.2$ nH	10 / 500MHz	6	0.05	600
0.3	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.05	600
0.4	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.05	600
0.5	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.10	600
0.6	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.10	600
0.7	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.10	600
0.8	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.10	600
0.9	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.10	600
1.0	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.15	600
1.1	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.15	600
1.2	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.15	600
1.3	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.20	600
1.4	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.20	600
1.5	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.25	600
1.6	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.25	600
1.7	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.30	500
1.8	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.30	500
1.9	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.30	500
2.0	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.30	500
2.1	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.30	500
2.2	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	500
2.3	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	500
2.4	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	450
2.5	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	450
2.6	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	450
2.7	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.35	450
2.8	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	450
2.9	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	450
3.0	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	400
3.1	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	400
3.2	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	400
3.3	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.50	400
3.4	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.80	350
3.5	$\pm 0.1, 0.2, 0.3$ nH	10 / 500MHz	6	0.80	350
3.6	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.80	350
3.7	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.80	350
3.8	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.80	350
3.9	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.80	350
4.0	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.80	350
4.4	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.50	300
4.7	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.50	300
4.9	$\pm 0.1, 0.2, 0.3$ nH, $\pm 3, \pm 5\%$	10 / 500MHz	6	0.60	300
5.6	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	6	0.60	250
6.1	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	5.5	0.70	250
6.8	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	5	0.75	250
7.4	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	5	0.80	200
8.2	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	4.5	0.90	200
9.1	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	4	1.05	175
9.2	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	4	1.15	150
10	$\pm 2, \pm 3, \pm 5\%$	10 / 500MHz	3.5	1.30	150

■ Operating Temperature Range: -55°C to +125°C

■ Test Equipment: HP4287A+Agilent 16196C

AL01-02 Chip Inductors / High Q Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.1	±0.1nH	14 / 500MHz	10	0.05	850
0.2	±0.1, 0.2nH	14 / 500MHz	10	0.05	800
0.3	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.05	800
0.4	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.05	750
0.5	±0.1, 0.2, 0.3nH	14 / 500MHz	10	0.10	750
0.6	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	750
0.7	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
0.8	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
0.9	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.10	600
1.0	±0.1, 0.2, 0.3nH	14 / 500MHz	9	0.15	600
1.1	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.2	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.3	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.4	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.5	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.6	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.15	600
1.7	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
1.8	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
1.9	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
2.0	±0.1, 0.2, 0.3nH	14 / 500MHz	8	0.2	500
2.1	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.2	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.3	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.2	500
2.4	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.5	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.6	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.7	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.8	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
2.9	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.25	450
3.0	±0.1, 0.2, 0.3nH	14 / 500MHz	7.5	0.3	400
3.1	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.2	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.3	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.3	400
3.4	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.5	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.6	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.7	±0.1, 0.2, 0.3nH	14 / 500MHz	7	0.4	350
3.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
3.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
4.0	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.4	350
4.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6.5	0.5	300
4.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.5	300
4.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.6	300
5.6	±2, ±5%	14 / 500MHz	6	0.6	250
6.1	±2, ±5%	14 / 500MHz	5.5	0.7	250
6.8	±2, ±5%	14 / 500MHz	5	0.75	250
7.4	±2, ±5%	14 / 500MHz	5	0.8	200
8.2	±2, ±5%	14 / 500MHz	4.5	0.9	200
9.1	±2, ±5%	14 / 500MHz	4	1.05	175
9.2	±2, ±5%	14 / 500MHz	4	1.15	150
10	±2, ±5%	14 / 500MHz	3.5	1.3	150

■ Operating Temperature Range: -55°C to +125°C

■ Test Equipment: HP4287A+Agilent 16196B

AL02 Chip Inductors / Standard Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.2	± 0.1 , 0.2nH	13 / 500MHz	14	0.10	800
0.3	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.10	800
0.4	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.10	800
0.5	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.6	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.8	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.15	700
0.9	± 0.1 , 0.2, 0.3nH	13 / 500MHz	14	0.15	700
1.0	± 0.1 , 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.1	± 0.1 , 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.2	± 0.1 , 0.2, 0.3nH	13 / 500MHz	12	0.15	700
1.3	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.4	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.5	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	700
1.6	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.7	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.8	± 0.1 , 0.2, 0.3nH	13 / 500MHz	10	0.25	560
1.9	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	560
2.0	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	560
2.1	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.2	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.3	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.4	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.5	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.6	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.7	± 0.1 , 0.2, 0.3nH	13 / 500MHz	8	0.35	440
2.8	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
2.9	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.0	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.1	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.2	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.3	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.45	380
3.4	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.5	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.6	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	380
3.7	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	340
3.8	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	340
3.9	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.55	340
4.3	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.65	320
4.7	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.65	320
5.4	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.85	280
5.6	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.85	280
5.9	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	0.85	280
6.5	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	1.05	260
6.8	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	1.05	260
7.2	± 0.1 , 0.2, 0.3nH	13 / 500MHz	6	1.05	260
8.0	± 0.1 , 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
8.1	± 0.1 , 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
8.2	± 0.1 , 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
9.1	± 0.1 , 0.2, 0.3nH	13 / 500MHz	5.5	1.25	220
10.0	± 1 , 2, 3, 5%	13 / 500MHz	4.5	1.35	200
10.8	± 1 , 2, 3, 5%	13 / 500MHz	4.5	1.35	200
12.0	± 1 , 2, 3, 5%	13 / 500MHz	3.7	1.55	180
13.8	± 1 , 2, 3, 5%	13 / 500MHz	3.7	1.75	180
15.0	± 1 , 2, 3, 5%	13 / 500MHz	3.3	1.75	130
17.0	± 1 , 2, 3, 5%	13 / 500MHz	3.1	1.95	100
18.0	± 1 , 2, 3, 5%	13 / 500MHz	3.1	2.15	100
20.8	± 1 , 2, 3, 5%	13 / 500MHz	2.8	2.55	90
22.0	± 1 , 2, 3, 5%	13 / 500MHz	2.8	2.65	90
27.0	± 1 , 2, 3, 5%	13 / 500MHz	2.5	3.25	75
33.0	$\pm 5\%$	13 / 500MHz	2.5	4.50	75

■ Operating Temperature Range: -55°C to +125°C

■ Test Equipment: HP4287A+Agilent 16196B

AL02-02 Chip Inductors / High Q Type

Inductance (nH)	Inductance Tolerance (nH or %)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
0.2	±0.1, 0.2nH	16 / 500MHz	14	0.1	1000
0.3	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.1	1000
0.4	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.1	1000
0.5	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.12	850
0.6	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.12	850
0.7	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.12	850
0.8	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.12	850
0.9	±0.1, 0.2, 0.3nH	16 / 500MHz	14	0.12	850
1.0	±0.1, 0.2, 0.3nH	16 / 500MHz	12	0.12	850
1.1	±0.1, 0.2, 0.3nH	16 / 500MHz	12	0.12	850
1.2	±0.1, 0.2, 0.3nH	16 / 500MHz	12	0.12	850
1.3	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	850
1.4	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	850
1.5	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	850
1.6	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	675
1.7	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	675
1.8	±0.1, 0.2, 0.3nH	16 / 500MHz	10	0.2	675
1.9	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	675
2.0	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	675
2.1	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.2	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.3	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.4	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.5	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.6	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.7	±0.1, 0.2, 0.3nH	16 / 500MHz	8	0.28	530
2.8	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
2.9	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
3.0	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
3.1	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
3.2	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
3.3	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.35	460
3.4	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	460
3.5	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	460
3.6	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	460
3.7	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	410
3.8	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	410
3.9	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.45	410
4.3	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.55	350
4.7	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.55	350
5.4	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.7	310
5.6	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.7	310
5.9	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.7	310
6.5	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.9	290
6.8	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.9	290
7.2	±0.1, 0.2, 0.3nH	16 / 500MHz	6	0.9	290
8.0	±0.1, 0.2, 0.3nH	16 / 500MHz	5.5	1.0	245
8.1	±0.1, 0.2, 0.3nH	16 / 500MHz	5.5	1.0	245
8.2	±0.1, 0.2, 0.3nH	16 / 500MHz	5.5	1.0	245
9.1	±0.1, 0.2, 0.3nH	16 / 500MHz	5.5	1.0	245
10	±1, 2, 3, 5%	16 / 500MHz	4.5	1.1	220

■ Operating Temperature Range: -55°C to +125°C

■ Test Equipment: HP4287A+Agilent 16196B

Environmental Characteristics

Item	Requirement	Test Method
Inductance	As Spec.	Measuring equipment and fixture: 0201: HP4287+Agilent 16196C 0402: HP4287+Agilent 16196B
Insulation Resistance	>1000MΩ	Apply 100V _{DC} for 1minute
Damp Heat with Load	$\Delta L \leq 10\%$	40±2°C, 90~95% R.H. Max. Working Voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hr "OFF"
Bending Strength	As Spec.	Bending Amplitude 3mm for 60 seconds
Solderability	95% min. coverage	245±5°C for 3 seconds
Resistance to Soldering Heat	$\Delta L \leq 10\%$	260±5°C for 10 seconds
Dielectric Withstand Voltage	>100V	Apply 100VA (rms) for 1 minute
High Temperature Exposure	$\Delta L \leq 10\%$	125±3°C, 1000 hours
Low Temperature Storage	$\Delta L \leq 10\%$	Exposed to a temperature of -55±3°C for 2H
Temperature Cycle	$\Delta L \leq 10\%$	-55 to +125°C, 10 cycles

■ Reference Standards: MIL-STD-202, JIS-C 5201-1, IEC 60068-2-1, JESD22

■ Storage Temperature: 15~28°C; Humidity < 80%RH

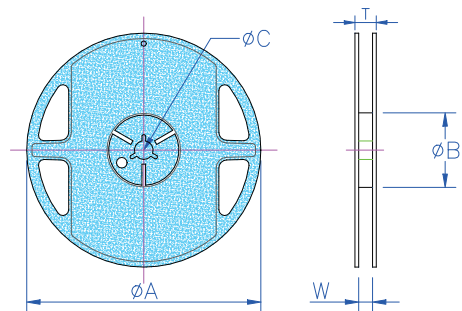
■ Shelf Life: 2 years from production date.

Packaging

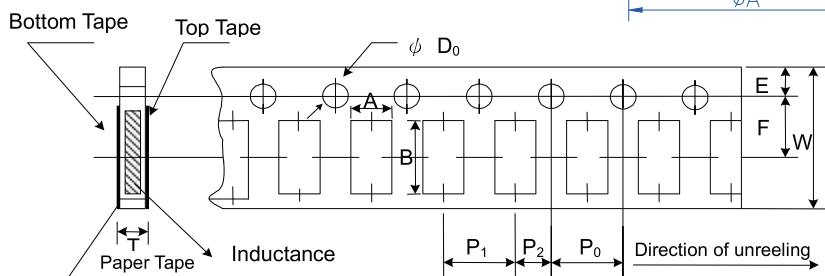
Reel Specifications & Packaging Quantity

Unit: mm

Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
AL01	178.0 ± 1.0	60 + 1.0	13.5 ± 0.7	9.5 ± 1.0	11.5 ± 1.0	10,000
AL02	178.0 ± 1.0	60 + 1.0	13.5 ± 0.7	9.5 ± 1.0	11.5 ± 1.0	10,000



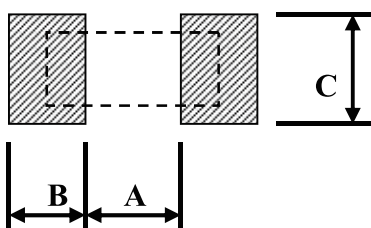
Paper Tape Specifications



Unit: mm

Type	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD ₀	T
AL01	0.40±0.05	0.70±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.03	0.42±0.02
AL02	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.43±0.03

Recommend Land Pattern

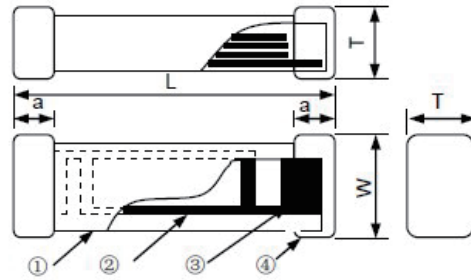
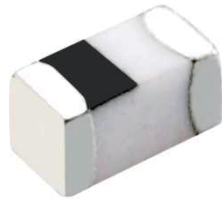


Unit: mm

Type	A	B	C
AL01	0.30	0.25	0.30±0.2
AL02	0.50	0.45	0.60±0.2

Multilayer Chip Inductor – CL-S Series

Construction



① Ceramic Material	③ Pull Out Electrode
② Internal Electrode	④ End-termination

Features

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and high heat resistance

Applications

- RF circuit in telecommunication and other equipments

Dimensions

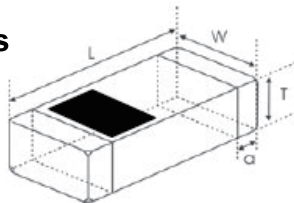


Figure1

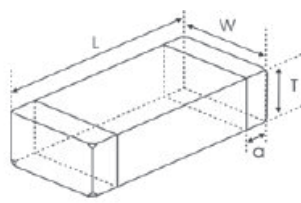


Figure2

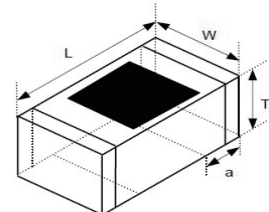


Figure3

Standard

Unit: mm

Type	Size (Inch)	Figure	L	W	T	a
CLE5-S	01005	1	0.40±0.02	0.20±0.02	0.20±0.02	0.095±0.025
CL02-S(<12nH)	0402	1	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
CL02-S(≥12nH)	0402	1&2	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
CL03-S(<560nH)	0603	2	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.20
CL03-S(≥560nH)	0603	2	1.65±0.20	0.80±0.20	0.80±0.20	0.30±0.20

High Q

Unit: mm

Type	Size (Inch)	Figure	L	W	T	a
CL01-SS	0201	1	0.60±0.03	0.30±0.03	0.30±0.03	0.1 ~ 0.2
CL01-S	0201	1	0.60±0.05	0.30±0.05	0.30±0.05	0.15±0.05
CL02-S01/S02	0402	3	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10

High Frequency

Unit: mm

Type	Size (Inch)	Figure	L	W	T	a
CL02-S	0402	2	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
CL03-S	0603	2	1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20

Part Numbering

CL	01	B	T	Q	1N0	-S	S
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Appearance	Inductance	Special Code	
	E5: 01005 01: 0201 02: 0402 03: 0603	B: ±0.1nH C: ±0.2nH S: ±0.3nH G: ±2% H: ±3% J: ±5% K: ±10%	T: Taping Reel	: Standard Q: High Q F: High Frequency	1N0: 1.0nH 39N: 39nH R10: 100nH		S: S S01: 01 S02: 02

Standard Electrical Specifications

CLE5-S Multilayer Chip Inductors / Standard Type

Inductance (nH)	Tolerance	Quality Factor/min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
0.2	±0.1nH, ±0.2nH	-	500	50	20.00	0.1	350
0.3	±0.1nH, ±0.2nH	-	500	50	20.00	0.2	350
0.4	±0.1nH, ±0.2nH	8	500	50	18.00	0.2	350
0.5	±0.1nH, ±0.2nH	8	500	50	18.00	0.2	350
0.6	±0.1nH, ±0.2nH	8	500	50	17.00	0.3	320
0.7	±0.1nH, ±0.2nH	8	500	50	16.50	0.3	320
0.8	±0.1nH, ±0.2nH	8	500	50	13.00	0.4	320
0.9	±0.1nH, ±0.2nH	8	500	50	13.00	0.4	320
1.0	±0.1nH, ±0.2nH	8	500	50	13.00	0.4	250
1.1	±0.1nH, ±0.2nH	8	500	50	12.50	0.5	250
1.2	±0.1nH, ±0.2nH	8	500	50	12.50	0.5	250
1.3	±0.1nH, ±0.2nH	8	500	50	11.50	0.6	250
1.4	±0.1nH, ±0.2nH	8	500	50	11.50	0.6	250
1.5	±0.1nH, ±0.2nH	8	500	50	9.50	0.6	220
1.6	±0.1nH, ±0.2nH	8	500	50	9.50	0.6	220
1.7	±0.1nH, ±0.2nH	8	500	50	9.50	0.6	200
1.8	±0.1nH, ±0.2nH	8	500	50	9.00	0.6	200
1.9	±0.1nH, ±0.2nH	8	500	50	9.00	0.6	200
2.0	±0.1nH, ±0.2nH	8	500	50	9.00	0.6	200
2.1	±0.1nH, ±0.2nH	8	500	50	9.00	0.6	200
2.2	±0.1nH, ±0.2nH	8	500	50	7.50	0.7	200
2.3	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.4	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.5	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.6	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.7	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.8	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
2.9	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
3.0	±0.1nH, ±0.2nH	8	500	50	7.50	0.8	200
3.1	±0.1nH, ±0.2nH	8	500	50	7.50	0.9	200
3.2	±0.1nH, ±0.2nH	8	500	50	7.50	1.0	200
3.3	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.4	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.5	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.6	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.7	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.8	±0.1nH, ±0.2nH	8	500	50	7.50	1.1	180
3.9	±0.1nH, ±0.2nH	8	500	50	7.50	1.2	180
4.0	±0.1nH, ±0.2nH	8	500	50	7.50	1.2	180
4.1	±0.1nH, ±0.2nH	8	500	50	7.50	1.2	180
4.3	±3%, ±5%	8	500	50	7.00	1.2	180
4.7	±3%, ±5%	8	500	50	6.50	1.3	160
5.1	±3%, ±5%	8	500	50	6.50	1.4	160
5.6	±3%, ±5%	8	500	50	6.00	1.5	140
6.2	±3%, ±5%	8	500	50	5.50	1.5	140
6.8	±3%, ±5%	8	500	50	5.50	1.6	140
7.5	±3%, ±5%	8	500	50	4.50	1.7	140
8.2	±3%, ±5%	8	500	50	4.50	1.8	140
9.1	±3%, ±5%	8	500	50	4.00	1.8	140
10	±3%, ±5%	8	500	50	4.00	2.1	140
11	±3%, ±5%	8	500	50	3.50	2.1	140
12	±3%, ±5%	8	500	50	3.50	2.4	140
13	±3%, ±5%	8	500	50	3.00	2.6	140
15	±3%, ±5%	8	500	50	2.50	2.6	140
18	±3%, ±5%	7	500	50	2.50	3.2	140
20	±3%, ±5%	7	500	50	2.30	3.2	130
22	±3%, ±5%	7	500	50	2.30	1.6	130
24	±3%, ±5%	7	500	50	2.00	1.6	120
27	±3%, ±5%	7	500	50	2.00	1.6	120
30	±3%, ±5%	7	500	50	1.80	3.5	120
33	±3%, ±5%	6	300	50	1.80	3.8	120
36	±3%, ±5%	4	300	50	1.60	2.0	90
39	±3%, ±5%	4	300	50	1.60	2.0	90

■ Operating temperature range: -55~+125°C

■ L/Q Test equipment: E4991+16196D

■ Test compensation: Short bar residual inductance 0.11nH

CL02-S Multilayer Chip Inductors / Standard Type

Inductance (nH)	Tolerance	Quality Factor/min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
1.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.06	1000
1.1	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
1.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
1.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	10.00	0.07	1000
1.5	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	1000
1.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	1000
1.8	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.08	900
2.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.09	900
2.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.09	900
2.4	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.10	800
2.7	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.12	800
3.0	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.12	800
3.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	6.00	0.13	800
3.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.15	700
3.9	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
4.3	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
4.7	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	700
5.1	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.16	600
5.6	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	4.00	0.20	600
6.2	±0.1nH, ±0.2nH, ±0.3nH	8	100	50	3.90	0.20	600
6.8	±2%, ±3%, ±5%	8	100	50	3.90	0.20	600
7.5	±2%, ±3%, ±5%	8	100	50	3.70	0.24	500
8.2	±2%, ±3%, ±5%	8	100	50	3.60	0.24	500
9.1	±2%, ±3%, ±5%	8	100	50	3.40	0.26	500
10	±2%, ±3%, ±5%	8	100	50	3.20	0.26	500
12	±2%, ±3%, ±5%	8	100	50	2.70	0.50	400
15	±2%, ±3%, ±5%	8	100	50	2.30	0.50	400
18	±2%, ±3%, ±5%	8	100	50	2.10	0.60	350
20	±2%, ±3%, ±5%	8	100	50	2.00	0.60	350
22	±2%, ±3%, ±5%	8	100	50	1.90	0.60	350
27	±2%, ±3%, ±5%	8	100	50	1.60	0.70	300
33	±2%, ±3%, ±5%	8	100	50	1.30	0.80	300
39	±2%, ±3%, ±5%	8	100	50	1.20	1.00	250
43	±2%, ±3%, ±5%	8	100	50	1.10	1.10	250
47	±2%, ±3%, ±5%	8	100	50	1.00	1.10	250
56	±2%, ±3%, ±5%	8	100	50	0.75	1.20	200
68	±2%, ±3%, ±5%	8	100	50	0.75	1.40	200
82	±2%, ±3%, ±5%	8	100	50	0.75	1.60	200
100	±2%, ±3%, ±5%	8	100	50	0.70	2.00	200
120	±2%, ±3%, ±5%	8	100	50	0.60	2.50	150
150	±2%, ±3%, ±5%	8	100	50	0.55	3.00	150
180	±2%, ±3%, ±5%	8	100	50	0.50	3.50	150
220	±2%, ±3%, ±5%	8	100	50	0.45	3.70	100
270	±2%, ±3%, ±5%	8	100	50	0.40	4.50	100
330	±2%, ±3%, ±5%	6	50	50	0.35	5.00	80

■ Operating temperature range: -55~+125°C

CL03-S Multilayer Chip Inductors / Standard Type

Inductance (nH)	Tolerance	Quality Factor/min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
1.0	$\pm 0.3\text{nH}$	8	100	50	10.00	0.05	500
1.2	$\pm 0.3\text{nH}$	8	100	50	10.00	0.05	500
1.5	$\pm 0.3\text{nH}$	8	100	50	6.00	0.10	500
1.8	$\pm 0.3\text{nH}$	8	100	50	6.00	0.10	500
2.0	$\pm 0.3\text{nH}$	8	100	50	6.00	0.10	500
2.2	$\pm 0.3\text{nH}$	8	100	50	6.00	0.10	500
2.4	$\pm 0.3\text{nH}$	8	100	50	6.00	0.12	500
2.7	$\pm 0.3\text{nH}$	10	100	50	6.00	0.12	500
3.3	$\pm 0.3\text{nH}$	10	100	50	6.00	0.15	500
3.6	$\pm 0.3\text{nH}$	10	100	50	6.00	0.16	500
3.9	$\pm 0.3\text{nH}$	10	100	50	6.00	0.16	500
4.3	$\pm 0.3\text{nH}$	10	100	50	6.00	0.18	500
4.7	$\pm 0.3\text{nH}$	10	100	50	6.00	0.20	500
5.1	$\pm 0.3\text{nH}$	10	100	50	5.50	0.25	500
5.6	$\pm 0.3\text{nH}$	10	100	50	5.00	0.25	500
6.8	$\pm 5\%, \pm 10\%$	10	100	50	5.00	0.30	500
7.5	$\pm 5\%, \pm 10\%$	10	100	50	4.50	0.35	500
8.2	$\pm 5\%, \pm 10\%$	10	100	50	4.50	0.35	500
9.1	$\pm 5\%, \pm 10\%$	10	100	50	3.50	0.40	500
10	$\pm 5\%, \pm 10\%$	12	100	50	3.50	0.40	300
12	$\pm 5\%, \pm 10\%$	12	100	50	3.00	0.45	300
15	$\pm 5\%, \pm 10\%$	12	100	50	2.30	0.50	300
18	$\pm 5\%, \pm 10\%$	12	100	50	2.20	0.55	300
22	$\pm 5\%, \pm 10\%$	12	100	50	2.00	0.60	300
24	$\pm 5\%, \pm 10\%$	12	100	50	2.00	0.60	300
27	$\pm 5\%, \pm 10\%$	12	100	50	1.70	0.65	300
33	$\pm 5\%, \pm 10\%$	12	100	50	1.50	0.70	300
36	$\pm 5\%, \pm 10\%$	12	100	50	1.40	0.70	300
39	$\pm 5\%, \pm 10\%$	12	100	50	1.40	0.70	300
47	$\pm 5\%, \pm 10\%$	12	100	50	1.20	0.70	300
56	$\pm 5\%, \pm 10\%$	12	100	50	1.10	0.75	300
68	$\pm 5\%, \pm 10\%$	12	100	50	0.90	0.85	300
82	$\pm 5\%, \pm 10\%$	8	100	50	0.80	1.00	300
100	$\pm 5\%, \pm 10\%$	8	100	50	0.70	1.20	300
120	$\pm 5\%, \pm 10\%$	8	50	50	0.60	1.40	200
150	$\pm 5\%, \pm 10\%$	8	50	50	0.50	1.60	200
180	$\pm 5\%, \pm 10\%$	8	50	50	0.40	1.90	200
220	$\pm 5\%, \pm 10\%$	8	50	50	0.35	2.40	200
270	$\pm 5\%, \pm 10\%$	8	50	50	0.35	2.60	150
330	$\pm 5\%, \pm 10\%$	8	50	50	0.35	2.80	150
390	$\pm 5\%, \pm 10\%$	8	50	50	0.30	3.20	150
430	$\pm 5\%, \pm 10\%$	8	50	50	0.28	3.40	150
470	$\pm 5\%, \pm 10\%$	8	50	50	0.25	3.60	150
560	$\pm 3\%, \pm 5\%, \pm 10\%$	8	50	-	0.25	4.00	100
680	$\pm 3\%, \pm 5\%, \pm 10\%$	8	50	-	0.25	4.50	100

■ Operating temperature range: $-40\sim+85^{\circ}\text{C}$

High Q Electrical Specifications

CL01-SS Multilayer Chip Inductors / High Q Type

Inductance (nH)	Tolerance	Quality Factor /min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) min.	RDC (Ω) max.	IDC (mA) Max.
0.6	±0.1nH, ±0.2nH	14	500	500	20.00	0.07	850
0.7	±0.1nH, ±0.2nH	14	500	500	20.00	0.08	800
0.8	±0.1nH, ±0.2nH	14	500	500	18.00	0.08	800
0.9	±0.1nH, ±0.2nH	14	500	500	18.00	0.10	750
1.0	±0.1nH, ±0.2nH	14	500	500	17.00	0.10	750
1.1	±0.1nH, ±0.2nH	14	500	500	17.00	0.10	750
1.2	±0.1nH, ±0.2nH	14	500	500	17.00	0.10	750
1.3	±0.1nH, ±0.2nH	14	500	500	17.00	0.15	600
1.4	±0.1nH, ±0.2nH	14	500	500	16.00	0.15	600
1.5	±0.1nH, ±0.2nH	14	500	500	15.00	0.15	600
1.6	±0.1nH, ±0.2nH	14	500	500	15.00	0.15	600
1.7	±0.1nH, ±0.2nH	14	500	500	15.00	0.15	600
1.8	±0.1nH, ±0.2nH	14	500	500	15.00	0.15	600
1.9	±0.1nH, ±0.2nH	14	500	500	12.50	0.15	600
2.0	±0.1nH, ±0.2nH	14	500	500	12.50	0.15	600
2.1	±0.1nH, ±0.2nH	14	500	500	11.00	0.15	600
2.2	±0.1nH, ±0.2nH	14	500	500	11.00	0.15	600
2.3	±0.1nH, ±0.2nH	14	500	500	10.00	0.20	500
2.4	±0.1nH, ±0.2nH	14	500	500	10.00	0.20	500
2.5	±0.1nH, ±0.2nH	14	500	500	10.00	0.20	500
2.6	±0.1nH, ±0.2nH	14	500	500	10.00	0.20	500
2.7	±0.1nH, ±0.2nH	14	500	500	10.00	0.20	500
2.8	±0.1nH, ±0.2nH	14	500	500	9.50	0.20	500
2.9	±0.1nH, ±0.2nH	14	500	500	9.50	0.20	500
3.0	±0.1nH, ±0.2nH	14	500	500	9.50	0.25	450
3.1	±0.1nH, ±0.2nH	14	500	500	8.00	0.25	450
3.2	±0.1nH, ±0.2nH	14	500	500	8.00	0.25	450
3.3	±0.1nH, ±0.2nH	14	500	500	8.00	0.25	450
3.4	±0.1nH, ±0.2nH	14	500	500	7.00	0.25	450
3.5	±0.1nH, ±0.2nH	14	500	500	7.00	0.25	450
3.6	±0.1nH, ±0.2nH	14	500	500	6.00	0.30	400
3.7	±0.1nH, ±0.2nH	14	500	500	6.00	0.30	400
3.8	±0.1nH, ±0.2nH	14	500	500	6.00	0.30	400
3.9	±0.1nH, ±0.2nH	14	500	500	5.70	0.30	400
4.0	±0.1nH, ±0.2nH	14	500	500	5.30	0.40	350
4.1	±0.1nH, ±0.2nH	14	500	500	5.30	0.40	350
4.2	±0.1nH, ±0.2nH	14	500	500	5.30	0.40	350
4.3	±3%, ±5%	14	500	500	5.30	0.40	350
4.7	±3%, ±5%	14	500	500	4.40	0.40	350
5.1	±3%, ±5%	14	500	500	4.20	0.40	350
5.6	±3%, ±5%	14	500	500	4.00	0.40	350
6.2	±3%, ±5%	14	500	500	4.00	0.60	300
6.8	±3%, ±5%	14	500	500	3.90	0.60	300
7.5	±3%, ±5%	14	500	500	3.70	0.60	300
8.2	±3%, ±5%	14	500	500	3.60	0.70	250
9.1	±3%, ±5%	14	500	500	3.30	0.70	250
10	±3%, ±5%	14	500	500	3.20	0.70	250
11	±3%, ±5%	14	500	500	2.90	0.80	250
12	±3%, ±5%	12	500	500	2.90	0.70	250
13	±3%, ±5%	12	500	500	2.60	0.80	250
15	±3%, ±5%	12	500	500	2.60	0.70	250
16	±3%, ±5%	12	500	500	2.20	0.95	200
18	±3%, ±5%	12	500	500	2.20	0.80	200
20	±3%, ±5%	12	500	500	2.20	2.30	150
22	±3%, ±5%	12	500	500	2.20	1.90	150

Operating temperature range: -55~+125°C

CL01-S Multilayer Chip Inductors / High Q Type

Inductance (nH)	Tolerance	Quality Factor/min.	Test Freq. (MHz)	Test Voltage (mV)	SRF (GHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
0.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.05	1000
0.7	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.05	1000
0.8	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.06	1000
0.9	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.06	800
1.0	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.07	800
1.1	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.07	800
1.2	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	800
1.3	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	700
1.4	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	700
1.5	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	650
1.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	650
1.7	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	10.00	0.10	650
1.8	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	9.00	0.15	650
2.0	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	8.50	0.15	650
2.2	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.15	650
2.4	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.15	550
2.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.20	550
2.7	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.20	550
2.8	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.20	500
3.0	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.20	450
3.3	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	7.50	0.25	450
3.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	6.50	0.25	400
3.9	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	6.50	0.25	400
4.3	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	6.00	0.35	350
4.7	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	6.00	0.40	350
5.1	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	5.50	0.40	350
5.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	5.00	0.40	350
6.2	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	14	500	50	5.00	0.40	300
6.8	$\pm 3\%, \pm 5\%$	14	500	50	4.50	0.50	300
7.5	$\pm 3\%, \pm 5\%$	14	500	50	4.00	0.50	300
8.2	$\pm 3\%, \pm 5\%$	14	500	50	4.00	0.50	250
9.1	$\pm 3\%, \pm 5\%$	14	500	50	4.00	0.70	250
10	$\pm 3\%, \pm 5\%$	14	500	50	4.00	0.70	250
12	$\pm 3\%, \pm 5\%$	13	500	50	3.50	0.70	250
15	$\pm 3\%, \pm 5\%$	13	500	50	3.20	0.85	250
18	$\pm 3\%, \pm 5\%$	13	500	50	3.00	1.00	200
20	$\pm 3\%, \pm 5\%$	13	500	50	2.20	1.10	150
22	$\pm 3\%, \pm 5\%$	13	500	50	2.20	1.20	150
27	$\pm 3\%, \pm 5\%$	13	500	50	2.20	1.50	140
33	$\pm 3\%, \pm 5\%$	12	300	50	1.80	1.80	120
36	$\pm 3\%, \pm 5\%$	12	300	50	1.70	2.00	120
39	$\pm 3\%, \pm 5\%$	12	300	50	1.60	2.00	120
43	$\pm 3\%, \pm 5\%$	12	300	50	1.60	2.20	100
47	$\pm 3\%, \pm 5\%$	12	300	50	1.50	2.20	100
56	$\pm 3\%, \pm 5\%$	12	300	50	1.20	2.50	100
68	$\pm 3\%, \pm 5\%$	12	300	50	1.00	3.20	100
75	$\pm 3\%, \pm 5\%$	11	300	50	1.00	3.60	100
82	$\pm 3\%, \pm 5\%$	11	300	50	1.00	3.80	100
91	$\pm 3\%, \pm 5\%$	11	300	50	0.90	3.80	80
100	$\pm 3\%, \pm 5\%$	11	300	50	0.80	4.00	80
120	$\pm 3\%, \pm 5\%$	10	300	50	0.80	5.00	80

■ Operating temperature range: -55~+125°C

■ L/Q Test equipment: E4991B+16196A

■ Test compensation: Short bar residual inductance 0.48nH

CL02-S01 Multilayer Chip Inductors / High Q Type

Inductance (nH)	Tolerance	Q min.	Test Frequency (MHz)	Test Voltage (mV)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
1.0	±0.1nH	13	500	50	6000	0.1	400
1.1	±0.1nH	13	500	50	6000	0.1	390
1.2	±0.1nH	13	500	50	6000	0.1	390
1.3	±0.1nH	13	500	50	6000	0.2	280
1.4	±0.1nH	13	500	50	6000	0.2	280
1.5	±0.1nH	13	500	50	6000	0.2	280
1.6	±0.1nH	13	500	50	6000	0.3	220
1.7	±0.1nH	13	500	50	6000	0.3	280
1.8	±0.1nH	13	500	50	6000	0.3	280
1.9	±0.1nH	13	500	50	6000	0.3	220
2.0	±0.1nH	13	500	50	6000	0.3	220
2.1	±0.1nH	13	500	50	6000	0.3	220
2.2	±0.1nH	13	500	50	6000	0.3	220
2.3	±0.1nH	13	500	50	6000	0.3	220
2.4	±0.1nH	13	500	50	6000	0.3	220
2.5	±0.1nH	13	500	50	6000	0.3	220
2.6	±0.1nH	13	500	50	6000	0.3	220
2.7	±0.1nH	13	500	50	6000	0.3	220
2.8	±0.1nH	13	500	50	6000	0.4	190
2.9	±0.1nH	13	500	50	6000	0.4	190
3.0	±0.1nH	13	500	50	6000	0.4	190
3.1	±0.1nH	13	500	50	6000	0.4	190
3.2	±0.1nH	13	500	50	6000	0.4	190
3.3	±0.1nH	13	500	50	6000	0.5	190
3.4	±0.1nH	13	500	50	6000	0.5	190
3.5	±0.1nH	13	500	50	6000	0.5	190
3.6	±0.1nH	13	500	50	6000	0.5	190
3.7	±0.1nH	13	500	50	6000	0.5	190
3.8	±0.1nH	13	500	50	6000	0.5	170
3.9	±0.1nH	13	500	50	6000	0.5	170
4.3	±0.1nH	13	500	50	6000	0.6	160
4.7	±0.1nH	13	500	50	6000	0.6	160
5.1	±0.1nH	13	500	50	6000	0.7	140
5.6	±0.1nH	13	500	50	6000	0.7	140
6.2	±0.1nH	13	500	50	6000	0.9	130
6.8	±0.1nH	13	500	50	6000	0.9	130
7.5	±0.1nH	13	500	50	5500	1.1	110
8.2	±0.1nH	13	500	50	5500	1.1	110
9.1	±0.1nH	13	500	50	4500	1.3	100
10	±2%	13	500	50	4500	1.3	100
12	±2%	13	500	50	3700	1.6	90
15	±2%	13	500	50	3300	1.8	90
18	±2%	13	500	50	3100	2.0	80
22	±2%	13	500	50	2800	2.6	70
27	±2%	13	500	50	2500	3.8	60
33	±2%	13	500	50	2100	3.8	60

■ Operating temperature range: -40~+85°C

■ Keysight E4991B+Testing fixture 16197A.Short bar residual inductance=0.556nH

CL02-S02 Multilayer Chip Inductors / High Q Type

Inductance (nH)	Tolerance	L Test Frequency (MHz)	Q min.	Q Test Frequency (MHz)	Test Voltage (mV)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
0.6	$\pm 0.1\text{nH}, \pm 0.2\text{nH}, \pm 0.3\text{nH}$	100	-	250	50	15000	0.01	1200
0.7	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	-	250	50	15000	0.02	1200
0.8	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	-	250	50	15000	0.02	1200
0.9	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	-	250	50	15000	0.03	1200
1.0	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	15000	0.03	1200
1.1	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	14000	0.03	1200
1.2	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	13000	0.03	1200
1.3	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	12000	0.03	1200
1.4	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	13000	0.04	1200
1.5	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	11000	0.04	1000
1.6	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	10000	0.04	1000
1.7	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	10000	0.04	1000
1.8	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	9000	0.04	1000
1.9	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	8000	0.05	1000
2.0	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	8000	0.05	1000
2.1	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	8000	0.06	1000
2.2	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	8000	0.06	1000
2.3	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	7000	0.07	1000
2.4	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.07	1000
2.5	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.06	900
2.6	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.07	900
2.7	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.07	900
2.8	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.07	900
2.9	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6500	0.08	900
3.0	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6000	0.09	900
3.1	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6000	0.09	900
3.2	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6000	0.09	900
3.3	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6000	0.08	900
3.4	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	6000	0.09	900
3.5	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5800	0.09	900
3.6	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5500	0.09	900
3.7	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5500	0.10	900
3.8	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.10	900
3.9	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.09	800
4.1	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.10	800
4.3	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.10	800
4.7	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.11	800
4.9	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	5000	0.11	800
5.1	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4500	0.12	800
5.4	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4500	0.13	800
5.6	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4500	0.13	800
5.8	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4000	0.13	700
6.0	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4000	0.13	700
6.2	$\pm 0.1, \pm 0.2, \pm 0.3\text{nH}$	100	23	250	50	4000	0.13	700
6.5	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	4000	0.14	700
6.8	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	4000	0.14	700
7.3	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	4000	0.16	600
7.5	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	4000	0.16	600
8.2	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3600	0.16	550
8.7	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3500	0.17	550
9.1	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3400	0.17	550
9.5	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3300	0.21	500
10	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3300	0.19	500
11	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	3000	0.22	450
12	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	2800	0.24	450
13	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	2800	0.26	400
15	$\pm 2\%, \pm 3\%, \pm 5\%$	100	23	250	50	2300	0.28	400

Inductance (nH)	Tolerance	L Test Frequency (MHz)	Q min.	Q Test Frequency (MHz)	Test Voltage (mV)	SRF (MHz) Min.	RDC (Ω) Max.	IDC (mA) Max.
16	±2%, ±3%, ±5%	100	20	250	50	2300	0.80	260
18	±2%, ±3%, ±5%	100	20	250	50	2300	0.80	260
19	±2%, ±3%, ±5%	100	20	250	50	2300	0.80	260
20	±2%, ±3%, ±5%	100	20	250	50	2100	1.10	260
22	±2%, ±3%, ±5%	100	20	250	50	2100	1.10	230
23	±2%, ±3%, ±5%	100	20	250	50	2000	1.10	230
24	±2%, ±3%, ±5%	100	20	250	50	2000	1.20	230
27	±2%, ±3%, ±5%	100	20	250	50	1700	1.30	230
30	±2%, ±3%, ±5%	100	20	250	50	1700	1.30	220
33	±2%, ±3%, ±5%	100	20	250	50	1600	1.50	220
36	±2%, ±3%, ±5%	100	20	250	50	1600	1.50	190
39	±2%, ±3%, ±5%	100	20	250	50	1400	1.50	190
40	±2%, ±3%, ±5%	100	20	250	50	1400	1.50	190
43	±2%, ±3%, ±5%	100	22	250	50	1400	1.60	190
47	±2%, ±3%, ±5%	100	22	250	50	1300	1.60	190
51	±2%, ±3%, ±5%	100	22	250	50	1300	1.80	190
56	±2%, ±3%, ±5%	100	22	250	50	1200	1.80	180
62	±2%, ±3%, ±5%	100	22	250	50	1100	1.90	180
68	±2%, ±3%, ±5%	100	22	250	50	1100	2.00	160
72	±2%, ±3%, ±5%	100	22	250	50	1100	2.20	160
75	±2%, ±3%, ±5%	100	22	250	50	1100	2.20	160
82	±2%, ±3%, ±5%	100	22	250	50	900	2.30	160
91	±2%, ±3%, ±5%	100	22	250	50	900	2.30	160
100	±2%, ±3%, ±5%	100	22	250	50	900	2.50	150
110	±2%, ±3%, ±5%	100	22	250	50	800	2.70	150
120	±2%, ±3%, ±5%	100	22	250	50	800	2.70	140
130	±2%, ±3%, ±5%	100	22	250	50	800	3.00	110
150	±2%, ±3%, ±5%	100	22	250	50	800	3.00	110
160	±2%, ±3%, ±5%	100	22	250	50	700	5.80	90
180	±2%, ±3%, ±5%	100	18	250	50	600	6.00	90
200	±2%, ±3%, ±5%	100	18	250	50	600	6.20	80
220	±2%, ±3%, ±5%	100	18	250	50	600	6.60	80
240	±2%, ±3%, ±5%	100	18	250	50	600	6.80	80
270	±2%, ±3%, ±5%	100	18	250	50	600	7.00	80
300	±2%, ±3%, ±5%	50	13	100	50	480	7.80	80
330	±2%, ±3%, ±5%	50	13	100	50	480	8.20	80
360	±2%, ±3%, ±5%	50	13	100	50	450	8.40	80
390	±2%, ±3%, ±5%	50	13	100	50	450	8.80	70
430	±2%, ±3%, ±5%	50	13	100	50	380	9.60	70
470	±2%, ±3%, ±5%	50	13	100	50	380	9.60	70
510	±2%, ±3%, ±5%	50	13	100	50	360	10.2	70
560	±2%, ±3%, ±5%	50	13	100	50	360	10.6	70

■ Operating temperature range: -55~+125°C

■ L/Q testing equipment: Keysight E4991B+16197A.Short bar residual inductance=0.556nH

High Frequency Electrical Specifications

CL02-S Multilayer Chip Inductors / High Frequency Type

Inductance (nH)	Tolerance	Quality Factor /min.	L/Q Freq. (MHz)	Q(Typical) Freq.(MHz)						SRF (GHz) min.	RDC (Ω) max.	IDC (mA) max.
				100	300	500	800	1000	1800			
1.0	$\pm 0.3\text{nH}$	5	100	9	16	20	25	28	31	>8.50	0.10	500
1.2	$\pm 0.3\text{nH}$	5	100	9	15	18	24	27	31	>8.50	0.12	500
1.5	$\pm 0.3\text{nH}$	5	100	7	12	16	20	21	29	>8.50	0.15	500
1.8	$\pm 0.3\text{nH}$	5	100	7	12	16	20	21	29	>8.50	0.17	500
2.2	$\pm 0.3\text{nH}$	5	100	7	12	16	20	21	30	>8.50	0.17	500
2.7	$\pm 0.3\text{nH}$	5	100	7	12	16	20	21	29	>8.50	0.20	500
3.3	$\pm 0.3\text{nH}$	5	100	7	12	15	19	20	27	>8.50	0.22	400
3.9	$\pm 0.3\text{nH}$	5	100	7	12	15	20	21	28	7.50	0.25	400
4.7	$\pm 0.3\text{nH}$	5	100	7	12	15	19	20	27	6.50	0.28	400
5.6	$\pm 0.3\text{nH}$	5	100	8	12	15	20	22	30	6.50	0.30	400
6.8	$\pm 5\%, \pm 10\%$	5	100	8	12	15	20	22	30	6.50	0.35	400
8.2	$\pm 5\%, \pm 10\%$	5	100	8	12	15	19	21	30	6.50	0.38	350
10	$\pm 5\%, \pm 10\%$	5	100	8	13	16	21	23	32	4.70	0.42	350
12	$\pm 5\%, \pm 10\%$	5	100	8	13	16	20	23	27	4.30	0.47	350
15	$\pm 5\%, \pm 10\%$	5	100	8	12	15	19	22	28	4.00	0.50	300
18	$\pm 5\%, \pm 10\%$	5	100	8	13	16	21	24	32	4.00	0.60	250
22	$\pm 5\%, \pm 10\%$	5	100	8	13	17	22	26	31	3.50	0.70	200
27	$\pm 5\%, \pm 10\%$	5	100	8	14	18	23	26	32	3.00	0.80	200
33	$\pm 5\%, \pm 10\%$	5	100	8	14	17	23	27	32	2.50	0.90	200
39	$\pm 5\%, \pm 10\%$	5	100	8	14	18	23	27	32	2.00	1.00	200
47	$\pm 5\%, \pm 10\%$	7	100	9	14	18	22	24	29	2.40	2.20	100
56	$\pm 5\%, \pm 10\%$	7	100	9	14	18	23	24	29	2.30	2.50	100
68	$\pm 5\%, \pm 10\%$	7	100	9	14	17	22	24	29	2.20	2.70	100
82	$\pm 5\%, \pm 10\%$	7	100	8	13	17	20	20	16	2.10	2.90	100
100	$\pm 5\%, \pm 10\%$	7	100	8	13	17	20	20	13	2.00	3.20	100

Operating temperature range: $-55\sim+125^{\circ}\text{C}$

CL03-S Multilayer Chip Inductors / High Frequency Type

Inductance (nH)	Tolerance	Quality Factor /min.	L/Q Freq. (MHz)	Q(Typical) Freq.(MHz)						SRF (GHz) min.	RDC (Ω) max.	IDC (mA) max.
				100	300	500	800	1000	1800			
10	$\pm 5\%$	8	100	10	22	28	35	39	45	>6.00	0.6	500
12	$\pm 5\%$	8	100	10	18	23	26	32	42	6.00	0.7	500
15	$\pm 5\%$	8	100	12	22	28	35	39	42	5.50	0.8	500
18	$\pm 5\%$	8	100	10	18	22	25	30	43	5.20	0.9	300
22	$\pm 5\%$	8	100	12	21	27	34	37	37	5.00	1.0	300
27	$\pm 5\%$	8	100	10	18	24	26	32	38	4.80	1.2	300
33	$\pm 5\%$	8	100	12	21	27	33	35	31	4.50	1.4	300
39	$\pm 5\%$	8	100	11	20	26	32	34	29	4.00	1.5	200
47	$\pm 5\%$	8	100	12	20	26	31	34	27	3.50	1.6	200
56	$\pm 5\%$	8	100	11	20	26	31	34	24	3.00	1.8	200
68	$\pm 5\%$	8	100	10	18	21	24	28	20	2.80	2.0	200
82	$\pm 5\%$	8	100	10	19	22	26	26	15	2.50	2.2	200
100	$\pm 5\%$	8	100	10	19	24	27	25	-	2.00	2.5	150
120	$\pm 5\%$	8	100	10	19	23	26	24	-	1.60	2.8	150
150	$\pm 5\%$	8	100	10	18	24	26	23	-	1.40	3.0	150
180	$\pm 5\%$	8	100	10	17	22	23	-	-	1.00	3.4	150

Operating temperature range: $-40\sim+85^{\circ}\text{C}$

Environmental Characteristics

Item	Requirement	Test Condition
Solderability	At least 95% of terminal electrode should be covered with solder	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 245±5°C Immersion tin depth: 10mm Duration : 5±1s Dip performance to a flux of about: 3 ~ 5 s
Resistance to Soldering Heat	At least 95% of terminal electrode should be covered with solder Inductance change: within ±10% Q change: within ±20%	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 260±5°C Immersion tin depth: 10mm Duration : 10±1s Dip performance to a flux of about: 3 ~ 5 s
Adhesion of Electrode	The termination and body should be no damage.	Applied force: 01005 sizes: 1N ; 0402 sizes: 5N; 0603 sizes: 7N Keep time : 10±1S
Low Temperature Resistance	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	Other sizes: -55±2°C, 1000+24/-0 hrs 0603 size: -40±2°C, 1000+24/-0 hrs
Bending Strength	No mechanical damage	Testing board: glass epoxy-resin substrate For 0.5 mm/s compression speed, curvature: 2mm, hold time 20s±1s
Vibration	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	Amplitude modulation: 1.5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
High Temperature Resistance	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	Other sizes: 125±2°C, 1000+24/-0 hrs 0603 size: 85±2°C, 1000+24/-0 hrs
Static Humidity	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	60±2°C, 90%~95%RH, 1000+24/-0 hrs
High Temperature Load	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	125±2°C, apply rated current for 1000+24/-0 hrs 0603 size: 85±2°C, apply rated current for 1000+24/-0 hrs
Temperature Shock	No mechanical damage. Inductance change: within ±10% Q value change(ceramic): within ±20%	-55°C~+125°C, 100 cycles

Storage Temperature: -10~+40°C; Humidity 30~70%RH

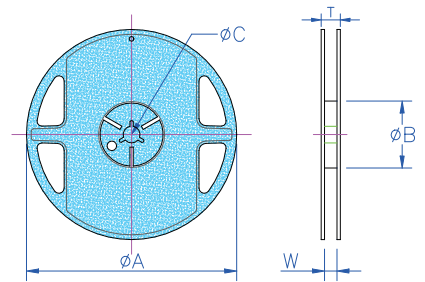
Shelf Life: 1 year from production date.

Packaging

Reel Dimensions

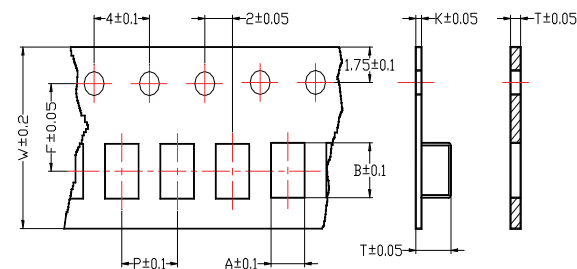
Unit: mm

Type	A	B	C	W	T	Quantity (EA)
CLE5-S	178±2	50 or more	13.0±0.20	8.4+1.5/-0	14.4 max	15,000
CL01-SS	178±2	50 or more	13.2±1.00	10.00±1.5	-	15,000
CL01-S	178±1	60.0±0.5	13.0±0.20	9.00±0.5	12.0±0.15	15,000
CL02-S01/S02	178±1	57.0±2.0	12.5±1.5	8.00+1.5/-0	12.0±0.15	10,000
CL03-S	178±1	60.0±0.5	13.0±0.20	9.00±0.5	12.0±0.15	4,000



Tape Specifications

Unit: mm

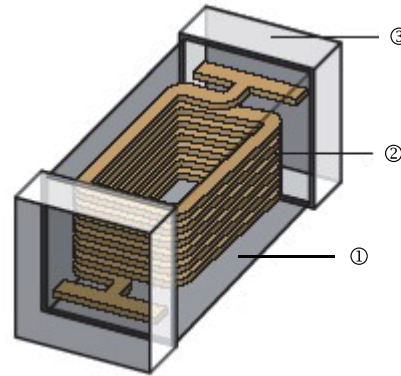


Type	A	B	T	W	P	F	K	Tape
CLE5-1	0.36	0.68	0.55max					B
CL01-SS	0.36	0.66	0.42	8	2	3.5	-	B
CL01-S	0.40	0.70	0.50	8	2	3.5	-	B
CL02-S01/S02	0.65	1.15	0.80	8	2	3.5	-	B
CL03-S	1.10	1.80	1.10	8	4	3.5	-	B

Type A Type B

Multilayer Ferrite Chip Inductor – ML(H) Series

Construction



① Ferrite	② Internal Electrode	③ Electrode Plating
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Features

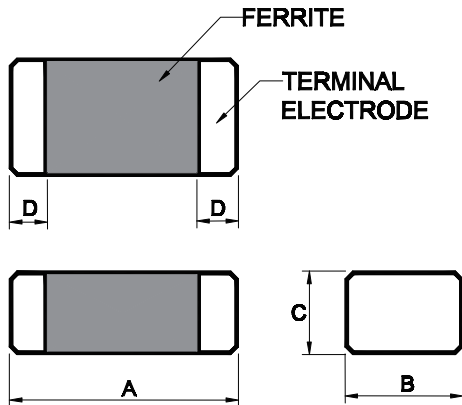
- Closed magnetic circuit avoids crosstalk
- Suitable for high density installation and re-flow soldering
- Sizes 0603 / 0805 / 0806 / 1008 / 1206

Applications

- Personal Computers
- Portable Equipment
- CD-ROM, Hard Disk, Modem, Printers
- DC-DC Converters
- DSC, DVC, PDA, DVD and HDD

Dimensions

Unit: mm



Type	Size (Inch)	A	B	C	D	Weight (g) (1000pcs)
ML03	0603	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.20	6.2
ML05 (≤2.2μH)	0805	2.00±0.20	1.25±0.20	0.90±0.20	0.50±0.30	10
ML05 (≥2.7μH)	0805	2.00±0.20	1.25±0.20	1.25±0.20	0.50±0.30	10
ML06	1206	3.20±0.20	1.60±0.20	1.10±0.20	0.50±0.30	30
MLH05	0805	2.00±0.20	1.25±0.20	0.90±0.10	0.50±0.20	10
MLH06	0806	2.00±0.15	1.60±0.15	0.90±0.10	0.50±0.20	12
MLH08	1008	2.50±0.20	2.00±0.20	0.90±0.10	0.60±0.20	21

Part Numbering

ML	05	K	T	1R0
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Inductance
ML : Standard MLH: High Current	03: 0603 05: 0805 06: 0806 08: 1008 06: 1206	K: ±10% M: ±20%	T: Taping Reel	10N: 10nH R27: 270nH 1R0: 1000nH

Standard Electrical Specifications

ML03 Multilayer Ferrite Chip Inductors Type(□:Tolerance):

Part No.	Inductance (nH)	Tolerance	L/Q Test Condition	Q min.	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
ML03MT47N	47	±20%	50MHz, 200mV	10	260	0.30	50
ML03MT56N	56	±20%	50MHz, 200mV	10	255	0.30	50
ML03MT68N	68	±20%	50MHz, 200mV	10	250	0.30	50
ML03MT82N	82	±20%	50MHz, 200mV	10	245	0.30	50
ML03□TR10	100	±10, ±20%	25MHz, 200mV	15	240	0.50	50
ML03□TR12	120	±10, ±20%	25MHz, 200mV	15	205	0.50	50
ML03□TR15	150	±10, ±20%	25MHz, 200mV	15	180	0.60	50
ML03□TR18	180	±10, ±20%	25MHz, 200mV	15	165	0.60	50
ML03□TR22	220	±10, ±20%	25MHz, 200mV	15	150	0.80	50
ML03□TR27	270	±10, ±20%	25MHz, 200mV	15	136	0.80	50
ML03□TR33	330	±10, ±20%	25MHz, 200mV	15	125	0.85	35
ML03□TR39	390	±10, ±20%	25MHz, 200mV	15	110	1.00	35
ML03□TR47	470	±10, ±20%	25MHz, 200mV	15	105	1.35	35
ML03□TR56	560	±10, ±20%	25MHz, 200mV	15	95	1.55	35
ML03□TR68	680	±10, ±20%	25MHz, 200mV	15	85	1.70	35
ML03□TR82	820	±10, ±20%	25MHz, 200mV	15	75	2.10	35
ML03□T1R0	1000	±10, ±20%	10MHz, 200mV	35	65	0.60	25
ML03□T1R2	1200	±10, ±20%	10MHz, 200mV	35	60	0.80	25
ML03□T1R5	1500	±10, ±20%	10MHz, 200mV	35	55	0.80	25
ML03KT1R5-1	1500	±10%	10MHz, 200mV	35	65	0.80	25
ML03□T1R8	1800	±10, ±20%	10MHz, 200mV	35	50	0.95	25
ML03□T2R2	2200	±10, ±20%	10MHz, 200mV	35	45	1.55	15
ML03□T2R7	2700	±10, ±20%	10MHz, 200mV	35	40	1.35	15
ML03□T3R3	3300	±10, ±20%	10MHz, 200mV	35	38	1.55	15
ML03□T3R9	3900	±10, ±20%	10MHz, 200mV	35	35	1.70	15
ML03□T4R7	4700	±10, ±20%	10MHz, 200mV	35	33	2.10	15
ML03□T5R6	5600	±10, ±20%	4MHz, 200mV	35	22	1.55	5
ML03□T6R8	6800	±10, ±20%	4MHz, 200mV	35	20	1.70	5
ML03□T8R2	8200	±10, ±20%	4MHz, 60 mV	30	18	2.10	5
ML03□T100	10000	±10, ±20%	2MHz, 60mV	30	17	1.85	3
ML03□T100-3	10000	±10, ±20%	2MHz, 100mV	30	17	1.30	100
ML03□T220	22000	±10, ±20%	1MHz, 60mV	15	11	2.10	1

Operating temperature range: -40~+125°C

ML05 Multilayer Ferrite Chip Inductors Type(□):Tolerance):

Part No.	Inductance (nH)	Tolerance	L/Q Test Condition	Q min.	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
ML05MT47N	47	±20%	50MHz, 200mV	20	320	0.20	300
ML05MT56N	56	±20%	50MHz, 200mV	20	320	0.20	300
ML05MT68N	68	±20%	50MHz, 200mV	20	280	0.20	300
ML05MT82N	82	±20%	50MHz, 200mV	20	255	0.20	300
ML05□TR10	100	±10, ±20%	25MHz, 200mV	25	235	0.30	250
ML05□TR12	120	±10, ±20%	25MHz, 200mV	25	220	0.30	250
ML05□TR15	150	±10, ±20%	25MHz, 200mV	25	200	0.40	250
ML05□TR18	180	±10, ±20%	25MHz, 200mV	25	185	0.40	250
ML05□TR22	220	±10, ±20%	25MHz, 200mV	25	170	0.50	250
ML05□TR27	270	±10, ±20%	25MHz, 200mV	25	150	0.50	250
ML05□TR33	330	±10, ±20%	25MHz, 200mV	25	145	0.55	250
ML05□TR39	390	±10, ±20%	25MHz, 200mV	25	135	0.65	200
ML05□TR47	470	±10, ±20%	25MHz, 200mV	25	125	0.65	200
ML05□TR56	560	±10, ±20%	25MHz, 200mV	25	115	0.75	150
ML05□TR68	680	±10, ±20%	25MHz, 200mV	25	105	0.80	150
ML05□TR82	820	±10, ±20%	25MHz, 200mV	25	100	1.00	150
ML05□T1R0	1000	±10, ±20%	10MHz, 200mV	45	75	0.40	50
ML05□T1R2	1200	±10, ±20%	10MHz, 200mV	45	65	0.50	50
ML05□T1R5	1500	±10, ±20%	10MHz, 200mV	45	60	0.50	50
ML05□T1R8	1800	±10, ±20%	10MHz, 200mV	45	55	0.60	50
ML05□T2R2	2200	±10, ±20%	10MHz, 200mV	45	50	0.65	30
ML05□T2R7	2700	±10, ±20%	10MHz, 200mV	45	45	0.75	30
ML05□T3R3	3300	±10, ±20%	10MHz, 200mV	45	41	0.80	30
ML05□T3R9	3900	±10, ±20%	10MHz, 200mV	45	38	0.90	30
ML05□T4R7	4700	±10, ±20%	10MHz, 200mV	45	35	1.00	30
ML05□T5R6	5600	±10, ±20%	4MHz, 200mV	50	32	0.90	15
ML05□T6R8	6800	±10, ±20%	4MHz, 200mV	50	29	1.00	15
ML05□T8R2	8200	±10, ±20%	4MHz, 200mV	50	26	1.10	15
ML05□T100	10000	±10, ±20%	2MHz, 60mV	50	24	1.15	15
ML05MT100-4	10000	±20%	2MHz, 100mV	50	24	0.50	300
ML05□T120	12000	±10, ±20%	2MHz, 60mV	50	22	1.25	15
ML05□T150	15000	±10, ±20%	1MHz, 60mV	30	19	0.80	5
ML05□T180	18000	±10, ±20%	1MHz, 60mV	30	18	0.90	5
ML05□T220	22000	±10, ±20%	1MHz, 60mV	30	16	1.10	5

■ Operating temperature range: -40~+125°C

ML06 Multilayer Ferrite Chip Inductors Type(□:Tolerance):

Part No.	Inductance (nH)	Tolerance	L/Q Test Condition	Q min.	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
ML06MT47N	47	±20%	50MHz, 200mV	20	320	0.15	300
ML06MT56N	56	±20%	50MHz, 200mV	20	280	0.25	300
ML06MT68N	68	±20%	50MHz, 200mV	20	280	0.25	300
ML06MT82N	82	±20%	50MHz, 200mV	20	250	0.25	300
ML06□TR10	100	±10, ±20%	25MHz, 200mV	20	235	0.25	250
ML06□TR12	120	±10, ±20%	25MHz, 200mV	20	220	0.30	250
ML06□TR15	150	±10, ±20%	25MHz, 200mV	20	200	0.30	250
ML06□TR18	180	±10, ±20%	25MHz, 200mV	20	185	0.40	250
ML06□TR22	220	±10, ±20%	25MHz, 200mV	20	170	0.40	250
ML06□TR27	270	±10, ±20%	25MHz, 200mV	20	150	0.50	250
ML06□TR33	330	±10, ±20%	25MHz, 200mV	20	145	0.60	250
ML06□TR39	390	±10, ±20%	25MHz, 200mV	25	135	0.50	200
ML06□TR47	470	±10, ±20%	25MHz, 200mV	25	125	0.60	200
ML06□TR56	560	±10, ±20%	25MHz, 200mV	25	115	0.70	150
ML06□TR68	680	±10, ±20%	25MHz, 200mV	25	105	0.80	150
ML06□TR82	820	±10, ±20%	25MHz, 200mV	25	100	0.90	150
ML06□T1R0	1000	±10, ±20%	10MHz, 200mV	45	75	0.40	100
ML06□T1R2	1200	±10, ±20%	10MHz, 200mV	45	65	0.50	100
ML06□T1R5	1500	±10, ±20%	10MHz, 200mV	45	60	0.50	80
ML06□T1R8	1800	±10, ±20%	10MHz, 200mV	45	55	0.50	70
ML06□T2R2	2200	±10, ±20%	10MHz, 200mV	45	50	0.60	60
ML06□T2R7	2700	±10, ±20%	10MHz, 200mV	45	45	0.60	60
ML06□T3R3	3300	±10, ±20%	10MHz, 200mV	45	41	0.70	60
ML06□T3R9	3900	±10, ±20%	10MHz, 200mV	45	38	0.80	50
ML06□T4R7	4700	±10, ±20%	10MHz, 200mV	45	35	0.90	50
ML06□T5R6	5600	±10, ±20%	4MHz, 200mV	45	32	0.70	25
ML06□T6R8	6800	±10, ±20%	4MHz, 200mV	45	29	0.80	25
ML06□T8R2	8200	±10, ±20%	4MHz, 200mV	45	26	0.90	25
ML06□T100	10000	±10, ±20%	2MHz, 60mV	45	24	1.00	25
ML06□T120	12000	±10, ±20%	2MHz, 60mV	45	22	1.05	15
ML06□T150	15000	±10, ±20%	1MHz, 60mV	35	19	0.70	5
ML06□T180	18000	±10, ±20%	1MHz, 60mV	35	18	0.75	5
ML06□T220	22000	±10, ±20%	1MHz, 60mV	35	16	0.90	5
ML06□T270	27000	±10, ±20%	1MHz, 60mV	35	14	0.90	5
ML06□T330	33000	±10, ±20%	1MHz, 60mV	35	13	1.05	5
ML06MT470	47000	±20%	2MHz, 100mV	40	10	3.40	10

■ Operating temperature range: -40~+125°C

■ High Current Electrical Specifications

MLH05 Multilayer Ferrite Chip Inductors Type

Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
MLH05MTR47	0.47	±20%	1MHz, 250mV	100	0.125	1100
MLH05MTR68	0.68	±20%	1MHz, 250mV	100	0.150	1000
MLH05MTR82	0.82	±20%	1MHz, 250mV	90	0.175	900
MLH05MT1R0	1.0	±20%	1MHz, 250mV	90	0.200	800
MLH05MT1R2	1.2	±20%	1MHz, 250mV	80	0.200	800
MLH05MT1R5	1.5	±20%	1MHz, 250mV	70	0.275	700
MLH05MT1R8	1.8	±20%	1MHz, 250mV	60	0.275	700
MLH05MT2R2	2.2	±20%	1MHz, 250mV	50	0.313	600
MLH05MT3R3	3.3	±20%	1MHz, 250mV	40	0.275	500
MLH05MT4R7	4.7	±20%	1MHz, 250mV	30	0.375	500

■ Operating temperature range: -40~+125°C

MLH06 Multilayer Ferrite Chip Inductors Type

Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
MLH06MTR47	0.47	±20%	1MHz, 250mV	100	0.182	1500
MLH06MTR68	0.68	±20%	1MHz, 250mV	90	0.195	1500
MLH06MTR82	0.82	±20%	1MHz, 250mV	80	0.208	1500
MLH06MT1R0	1.0	±20%	1MHz, 250mV	60	0.208	1400
MLH06MT1R2	1.2	±20%	1MHz, 250mV	60	0.208	1400
MLH06MT1R5	1.5	±20%	1MHz, 250mV	50	0.260	1200
MLH06MT1R8	1.8	±20%	1MHz, 250mV	50	0.260	1200
MLH06MT2R2	2.2	±20%	1MHz, 250mV	40	0.286	1200
MLH06MT3R3	3.3	±20%	1MHz, 250mV	30	0.312	1100
MLH06MT4R7	4.7	±20%	1MHz, 250mV	20	0.390	1100

■ Operating temperature range: -40~+125°C

MLH08 Multilayer Ferrite Chip Inductors Type

Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.
MLH08MTR47	0.47	±20%	1MHz, 250mV	100	0.088	1800
MLH08MTR68	0.68	±20%	1MHz, 250mV	90	0.113	1700
MLH08MTR82	0.82	±20%	1MHz, 250mV	80	0.125	1700
MLH08MT1R0	1.0	±20%	1MHz, 250mV	60	0.138	1600
MLH08MT1R2	1.2	±20%	1MHz, 250mV	60	0.138	1600
MLH08MT1R5	1.5	±20%	1MHz, 250mV	50	0.163	1500
MLH08MT1R8	1.8	±20%	1MHz, 250mV	50	0.163	1500
MLH08MT2R2	2.2	±20%	1MHz, 250mV	40	0.213	1300
MLH08MT3R3	3.3	±20%	1MHz, 250mV	30	0.200	1200
MLH08MT4R7	4.7	±20%	1MHz, 250mV	25	0.250	1100

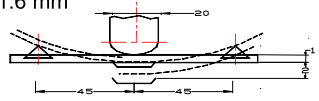
■ Operating temperature range: -40~+125°C

Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method
Inductance	Refer to standard electrical characteristic spec.	HP4291B
Q		HP4291B
SRF		HP4291B
DC Resistance RDC		Agilent 34401A
IDC		The DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

Mechanical Performance Test

Item	Requirement	Test Method
Resistance to Soldering Heat	Appearance: No damage More than 75% of the terminal. Electrode should be covered with solder. Inductance: within ±15% of initial value Q: within ±30% of initial value Inductance: within±20% of initial value (0603 over 12uH)	Pre-heating: 150°C, 1min. Solder Composition: Sn/Ag3.0/Cu0.5 (Pb-Free) Solder Temperature: 260±5°C (Pb-Free) Immersion Time: 10±1 sec.
Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min. Solder Composition: Sn/Ag3.0/Cu0.5 (Pb-Free) Solder Temperature: 245±5°C (Pb-Free) Immersion Time: 4±1 sec.
Flexure Strength	The forces applied on the right conditions must not damage the terminal electrode and the ferrite.	Test device shall be soldered on the substrate Substrate Dimension: 100x40x1.6 mm Deflection: 2.0 mm Keeping Time: 30 sec. 
Vibration		Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1 min. Amplitude: 1.5 mm Time: 2 hrs for each axis (X, Y & Z), total 6 hrs

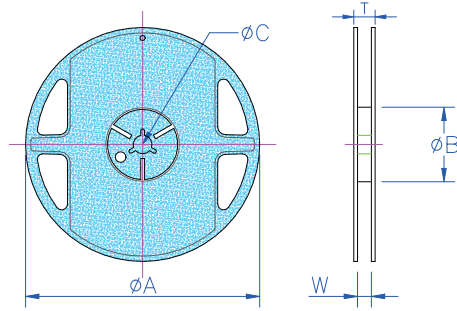
Climatic Test

Item	Requirement	Test Method															
Damp Heat with Load	Appearance: No damage L change: within±10% of initial value Q change: within±30% of initial value	Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs															
Temperature Cycle		One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>3</td> </tr> </tbody> </table> Total: 100 cycles Measured after exposure in the room condition for 24 hrs	Step	Temperature (°C)	Time (min.)	1	-25±3	30	2	25±2	3	3	85±3	30	4	25±2	3
Step		Temperature (°C)	Time (min.)														
1		-25±3	30														
2	25±2	3															
3	85±3	30															
4	25±2	3															
High Temperature Resistance	Temperature: 85±3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000 hrs Measured after exposure in the room condition for 24 hrs																
Low Temperature Resistance	Temperature: -25±3°C Relative Humidity: 0% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs																

Storage Temperature: <40°C; Humidity 30~70%RH

■ Packaging

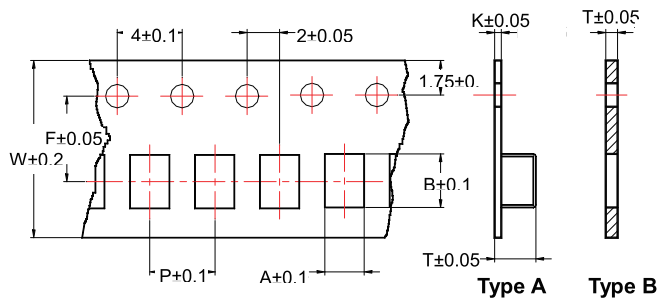
Reel Specifications



Unit: mm

Type	A	B	C	W	T	Quantity (EA)	
						Paper Tape (Type B)	Polystyrene Tape (Type A)
ML03	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	4,000	-
ML05(≤2.2uH)	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	4,000	-
ML05(≥2.7uH)	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	-	3,000
ML06	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	-	3,000
MLH05	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	4,000	-
MLH06	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	-	3,000
MLH08	178±1	60.0+0.5	13.0±0.2	9.00±0.5	12.0±0.15	-	3,000

Tape Specifications

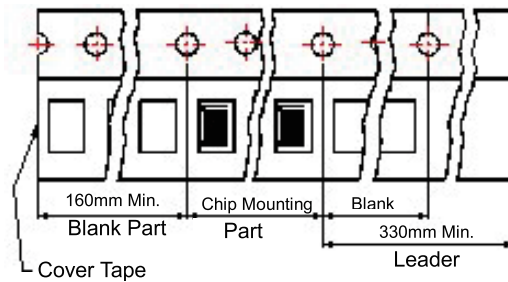


Tape Material

Carrier tape: Polystyrene for 0603 0805 1206

Paper for 0603

Cover type: Polystyrene



Unit: mm

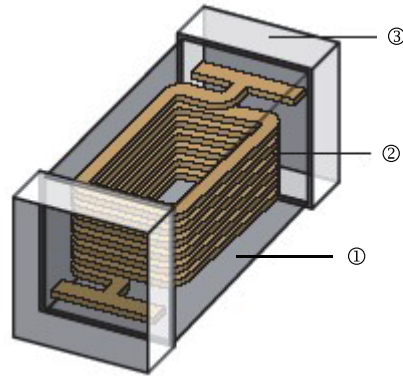
Type	A	B	T	W	P	F	K	Tape Type
ML03	1.05	1.85	0.95	8.0	4.0	3.5	-	B
ML05(≤2.2uH)	1.50	2.42	0.95	8.0	4.0	3.5	-	B
ML05(≥2.7uH)	1.50	2.35	1.45	8.0	4.0	3.5	0.22	A
ML06	1.88	3.50	1.27	8.0	4.0	3.5	0.22	A
MLH05	1.45	2.25	0.95	8.0	4.0	3.5	-	B
MLH06	1.88	2.40	1.23	8.0	4.0	3.5	0.23	A
MLH08	2.20	2.85	1.40	8.0	4.0	3.5	0.23	A

Note:

- Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
- Do not knock nor drop.
- All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.

Multilayer Chip Bead – CBM Series

Construction

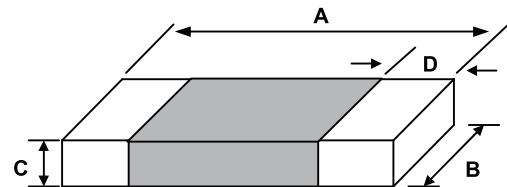


① Ferrite	② Internal Electrode	③ Electrode Plating
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Features

- Effective EMI protection
- Low DC resistance
- High soldering heat resistance
- Multiple size availability

Dimensions



Unit: mm

Applications

- Computers and Peripheral Equipment
- VCRS, Television, Paggers
- Cellular Phones
- Digital Communication Equipment
- Various Electronics Equipments

Type	Size (Inch)	A	B	C	D	Weight (g) (1000pcs)
CBM01	0201	0.6±0.03	0.30±0.03	0.30±0.03	0.1~0.2	1.1
CBM02	0402	1.0±0.10	0.50±0.10	0.5±0.10	0.1~0.35	2.6
CBM03	0603	1.6±0.20	0.80±0.15	0.8±0.15	0.1~0.6	6.2
CBM05	0805	2.0±0.20	1.25±0.20	0.9±0.20	0.2~0.8	10
CBM04	1204	3.2±0.20	1.60±0.20	1.1±0.20	0.2~1.0	30
CBM10	1210	3.2±0.20	2.50±0.20	1.3±0.20	0.2~1.0	54
CBM08	1808	4.5±0.25	1.60±0.20	1.6±0.20	0.2~1.0	60
CBM12	1812	4.5±0.25	3.20±0.20	1.5±0.20	0.2~1.0	62
CBM20	2220	5.59±0.51	5.08±0.25	3.61±0.25	0.51~1.01	62

Part Numbering

CBM	03	Y	T	Y	N	601
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Material Code	Current	Impedance
	01: 0201 02: 0402 03: 0603 05: 0805 04: 1204 10: 1210 08: 1808 12: 1812 20: 2220	Y: ±25%	T: Taping Reel	A: A material B: B material H: H material K: K material I: I material	H: High current G: Medium current N: General current F: High Frequency C: High current & High Frequency	090: 9Ω 110: 11Ω 451: 450Ω 152: 1500Ω

Standard Electrical Specifications(for General Signal Line Use)

CBM01(060303) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM01YTAN100	10	±25%	100	0.10	500
CBM01YTAN110	11	±25%	100	0.10	500
CBM01YTAN220	22	±25%	100	0.30	300
CBM01YTAN250	25	±25%	100	0.30	300
CBM01YTAN300	30	±25%	100	0.30	300
CBM01YTAN330	33	±25%	100	0.30	300
CBM01YTAN400	40	±25%	100	0.30	300
CBM01YTAN500	50	±25%	100	0.30	300
CBM01YTAN600	60	±25%	100	0.35	300
CBM01YTAN700	70	±25%	100	0.35	300
CBM01YTAN800	80	±25%	100	0.35	300
CBM01YTAN101	100	±25%	100	0.40	200
CBM01YTAN121	120	±25%	100	0.45	200
CBM01YTAN151	150	±25%	100	0.50	200
CBM01YTAN221	220	±25%	100	0.75	200
CBM01YTAN241	240	±25%	100	0.80	200
CBM01YTAN301	300	±25%	100	0.90	150
CBM01YTAN331	330	±25%	100	0.90	150
CBM01YTAN471	470	±25%	100	1.50	100
CBM01YTAN601	600	±25%	100	1.50	100
CBM01YTAN102	1000	±25%	100	2.50	100
CBM01YTAN102-1	1000	±25%	100	1.25	220

CBM02(100505) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM02YTAN100	10	±25%	100	0.05	500
CBM02YTAN300	30	±25%	100	0.20	300
CBM02YTAN400	40	±25%	100	0.20	300
CBM02YTAN600	60	±25%	100	0.40	200
CBM02YTAN680	68	±25%	100	0.15	500
CBM02YTAN700	70	±25%	100	0.40	200
CBM02YTAN700-1	70	±25%	100	0.15	500
CBM02YTAN800	80	±25%	100	0.40	200
CBM02YTAN101	100	±25%	100	0.45	200
CBM02YTAN121	120	±25%	100	0.50	200
CBM02YTAN121-1	120	±25%	100	0.20	500
CBM02YTAN151	150	±25%	100	0.60	200
CBM02YTAN181	180	±25%	100	0.65	100
CBM02YTAN221	220	±25%	100	0.70	100
CBM02YTAN221-1	220	±25%	100	0.28	700
CBM02YTAN221-3	220	±25%	100	0.35	300
CBM02YTAN241	240	±25%	100	0.30	500
CBM02YTAN301	300	±25%	100	0.75	100
CBM02YTAN301-1	300	±25%	100	0.45	400
CBM02YTAN331	330	±25%	100	0.75	100
CBM02YTAN331-1	330	±25%	100	0.20	800
CBM02YTAN331-2	330	±25%	100	0.28	700
CBM02YTAN471	470	±25%	100	0.90	100
CBM02YTAN471-1	470	±25%	100	0.60	300
CBM02YTAN501	500	±25%	100	1.00	100
CBM02YTAN601	600	±25%	100	1.10	50
CBM02YTAN601-1	600	±25%	100	0.60	300
CBM02YTAN601-3	600	±25%	100	0.34	500
CBM02YTAN102	1000	±25%	100	1.50	50
CBM02YTAN102-1	1000	±25%	100	0.80	250
*CBM02YTAN102-2	1000	±25%	100	0.58	300
*CBM02YTAN102-3	1000	±25%	100	0.49	350
CBM02YTAN152-2	1500	±25%	100	0.80	250
*CBM02YTAN182-2	1800	±25%	100	0.80	250

The maximum rated current : the DC current value having temperature increased 40℃ after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

■Viking is capable to design according to customer special requirement

Standard Electrical Specifications(for General Signal Line Use)

CBM03(160808) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTAN190	19	±25%	100	0.10	400
CBM03YTAN310	31	±25%	100	0.10	400
CBM03YTAN470	47	±25%	100	0.15	400
CBM03YTAN520	52	±25%	100	0.15	400
CBM03YTAN600	60	±25%	100	0.15	400
CBM03YTAN600-1	60	±25%	100	0.10	500
CBM03YTAN750	75	±25%	100	0.15	400
CBM03YTAN800	80	±25%	100	0.15	400
CBM03YTAN800-1	80	±25%	100	0.10	600
CBM03YTAN101	100	±25%	100	0.15	400
CBM03YTAN121	120	±25%	100	0.15	400
CBM03YTAN121-1	120	±25%	100	0.10	800
CBM03YTAN151	150	±25%	100	0.15	400
CBM03YTAN181	180	±25%	100	0.20	400
CBM03YTAN201	200	±25%	100	0.20	400
CBM03YTAN221	220	±25%	100	0.20	400
CBM03YTAN241	240	±25%	100	0.17	500
CBM03YTAN301	300	±25%	100	0.30	400
CBM03YTAN401	400	±25%	100	0.30	400
CBM03YTAN401-1	400	±25%	100	0.20	500
CBM03YTAN421	420	±25%	100	0.30	400
CBM03YTAN451	450	±25%	100	0.30	400
CBM03YTAN601	600	±25%	100	0.35	400
CBM03YTAN751	750	±25%	100	0.35	400
CBM03YTAN102	1000	±25%	100	0.55	300
CBM03YTAN102-1	1000	±25%	100	0.25	800
CBM03YTAN102-2	1000	±25%	100	0.45	500
CBM03YTAN152	1500	±25%	100	0.60	200

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTAN070	7	±25%	100	0.10	300
CBM05YTAN110	11	±25%	100	0.10	300
CBM05YTAN170	17	±25%	100	0.10	300
CBM05YTAN260	26	±25%	100	0.10	300
CBM05YTAN300	30	±25%	100	0.10	300
CBM05YTAN310	31	±25%	100	0.10	300
CBM05YTAN520	52	±25%	100	0.15	300
CBM05YTAN600	60	±25%	100	0.15	300
CBM05YTAN800	80	±25%	100	0.15	300
CBM05YTAN101	100	±25%	100	0.20	300
CBM05YTAN121	120	±25%	100	0.20	300
CBM05YTAN151	150	±25%	100	0.20	300
CBM05YTAN151-1	150	±25%	100	0.10	800
CBM05YTAN221	220	±25%	100	0.25	300
CBM05YTAN301	300	±25%	100	0.25	300
CBM05YTAN401	400	±25%	100	0.30	300
CBM05YTAN471	470	±25%	100	0.18	700
CBM05YTAN531	530	±25%	100	0.35	300
CBM05YTAN601	600	±25%	100	0.35	300
CBM05YTAN102	1000	±25%	100	0.45	300
CBM05YTAN152	1500	±25%	100	0.70	300

The maximum rated current : the DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

■ Viking is capable to design according to customer special requirement

■ Standard Electrical Specifications(for General Signal Line Use)

CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAN190	19	±25%	100	0.10	800
CBM04YTAN260	26	±25%	100	0.10	800
CBM04YTAN310	31	±25%	100	0.10	800
CBM04YTAN520	52	±25%	100	0.15	800
CBM04YTAN600	60	±25%	100	0.15	500
CBM04YTAN700	70	±25%	100	0.15	500
CBM04YTAN101	100	±25%	100	0.20	450
CBM04YTAN121	120	±25%	100	0.20	450
CBM04YTAN151	150	±25%	100	0.20	450
CBM04YTAN221	220	±25%	100	0.20	350
CBM04YTAN301	300	±25%	100	0.20	350
CBM04YTAN401	400	±25%	100	0.25	350
CBM04YTAN601	600	±25%	100	0.25	350
CBM04YTAN601-1	600	±25%	100	0.25	500
CBM04YTAN751	750	±25%	100	0.30	350
CBM04YTAN801	800	±25%	100	0.30	350
CBM04YTAN102	1000	±25%	100	0.35	350
CBM04YTAN122	1200	±25%	100	0.35	350
*CBM04YTAN152	1500	±25%	100	0.40	350
CBM04YTAN152-1	1500	±25%	50	0.20	800

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM10YTAN310	31	±25%	100	0.10	500
CBM10YTAN520	52	±25%	100	0.30	400
CBM10YTAN600	60	±25%	100	0.30	400

CBM08(451616) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM08YTAN600	60	±25%	100	0.20	500
CBM08YTAN800	80	±25%	100	0.30	400
CBM08YTAN800-1	80	±25%	100	0.20	600

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM12YTAN121	120	±25%	100	0.20	500

The maximum rated current : the DC current value having temperature increased 40℃ after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

■Viking is capable to design according to customer special requirement

Standard Electrical Specifications(for High Speed Signal Line Use)

CBM03(160808) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
*CBM03YTBN300	30	±25%	100	0.20	500
*CBM03YTBN470	47	±25%	100	0.20	500
*CBM03YTBN121	120	±25%	100	0.30	450
*CBM03YTBN471	470	±25%	100	0.35	450
*CBM03YTBN601	600	±25%	100	0.40	450
*CBM03YTBN102	1000	±25%	100	0.60	300

CBM05(201209) / B Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
*CBM05YTBN050	5	±25%	100	0.07	500
*CBM05YTBN300	30	±25%	100	0.15	300
*CBM05YTBN600	60	±25%	100	0.15	300
*CBM05YTBN750	75	±25%	100	0.20	300
*CBM05YTBN101	100	±25%	100	0.20	300
*CBM05YTBN121	120	±25%	100	0.20	300
*CBM05YTBN221	220	±25%	100	0.25	200
*CBM05YTBN301	300	±25%	100	0.25	200
*CBM05YTBN401	400	±25%	100	0.20	300
*CBM05YTBN601	600	±25%	100	0.25	200
*CBM05YTBN751	750	±25%	100	0.30	200
*CBM05YTBN102	1000	±25%	100	0.30	200
CBM05YTBN152	1500	±25%	100	0.35	200
CBM05YTBN182	1800	±25%	100	0.40	200
CBM05YTBN202	2000	±25%	100	0.40	200
CBM05YTBN222	2200	±25%	100	0.50	200
CBM05YTBN252	2500	±25%	100	0.60	200
CBM05YTBN272	2700	±25%	100	0.60	200

The maximum rated current : the DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

■ Viking is capable to design according to customer special requirement

Standard Electrical Specifications(for General Signal Line Frequency Higher Than A Use)

CBM03(160808) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
*CBM03YTKN471	470	±25%	100	0.55	200
*CBM03YTKN601	600	±25%	100	0.65	200
*CBM03YTKN751	750	±25%	100	0.70	200
CBM03YTKN102	1000	±25%	100	0.85	100
CBM03YTKN122	1200	±25%	100	0.85	100
CBM03YTKN152	1500	±25%	100	0.90	100
CBM03YTKN152-1	1500	±25%	100	0.40	500
CBM03YTKN182	1800	±25%	100	1.00	100
CBM03YTKN202	2000	±25%	100	1.00	100
CBM03YTKN222-1	2200	±25%	100	0.80	50
CBM03YTKN222-2	2200	±25%	100	0.75	200
CBM03YTKN252	2500	±25%	100	1.00	50
CBM03YTKN252-1	2500	±25%	100	0.70	150
CBM03YTKN252-2	2500	±25%	100	0.80	200
*CBM03YTKN272	2700	±25%	100	1.05	50

CBM05(201209) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM05YTKN800	80	±25%	100	0.30	300
*CBM05YTKN601	600	±25%	100	0.35	200
*CBM05YTKN751	750	±25%	100	0.35	200
CBM05YTKN102	1000	±25%	100	0.40	200
CBM05YTKN102-1	1000	±25%	100	0.30	500
CBM05YTKN122	1200	±25%	100	0.40	200
CBM05YTKN152	1500	±25%	100	0.45	200
CBM05YTKN202	2000	±25%	100	0.60	200
CBM05YTKN202-1	2000	±25%	100	0.50	400
CBM05YTKN222	2200	±25%	100	0.60	200
CBM05YTKN252	2500	±25%	100	0.70	200
CBM05YTKN272	2700	±25%	100	0.70	200
*CBM05YTKN502	5000	±25%	50	0.60	300

CBM04(321611) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
*CBM04YTKN601	600	±25%	100	0.50	200
*CBM04YTKN102	1000	±25%	100	0.70	200
*CBM04YTKN122	1200	±25%	100	0.70	200
*CBM04YTKN202	2000	±25%	100	0.40	500
*CBM04YTKN202-1	2000	±25%	100	0.45	200

The maximum rated current : the DC current value having temperature increased 40℃ after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

■Viking is capable to design according to customer special requirement

Standard Electrical Specifications(for Ultra High Speed Signal Line Use)

CBM02(100505) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Freq. (MHz)	DCR (Ω) max.	Rated Current (mA) max.
*CBM02YTHN050	5	±25%	100	0.08	500
*CBM02YTHN100	10	±25%	100	0.10	500
CBM02YTHN220	22	±25%	100	0.20	300
CBM02YTHN300	30	±25%	100	0.20	300
CBM02YTHN330	33	±25%	100	0.40	300
CBM02YTHN470	47	±25%	100	0.35	300
CBM02YTHN470-1	47	±25%	100	0.33	350
CBM02YTHN600	60	±25%	100	0.40	300
CBM02YTHN750	75	±25%	100	0.40	300
CBM02YTHN101	100	±25%	100	0.55	300
CBM02YTHN121	120	±25%	100	0.55	300
CBM02YTHN221	220	±25%	100	0.80	200
CBM02YTHN301	300	±25%	100	1.00	100
*CBM02YTHN471	470	±25%	100	1.50	50
*CBM02YTHN601	600	±25%	100	2.50	50

CBM03(160808) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
CBM03YTHN100	10	±25%	100	0.10	900
CBM03YTHN200	20	±25%	100	0.20	600
CBM03YTHN470	47	±25%	100	0.30	500
CBM03YTHN470-1	47	±25%	100	0.15	600
*CBM03YTHN680	68	±25%	100	0.10	700
CBM03YTHN121	120	±25%	100	0.30	300
CBM03YTHN301	300	±25%	100	0.35	300
CBM03YTHN601	600	±25%	100	0.65	300
CBM03YTHN102	1000	±25%	100	1.10	50

CBM05(201209) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated Current (mA) max.
*CBM05YTHN050	5	±25%	100	0.07	500
*CBM05YTHN070	7	±25%	100	0.07	500
*CBM05YTHN100	10	±25%	100	0.07	500
*CBM05YTHN600	60	±25%	100	0.15	500
*CBM05YTHN121	120	±25%	100	0.35	300
CBM05YTHN601	600	±25%	100	0.65	200

The maximum rated current : the DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

■Viking is capable to design according to customer special requirement

Standard Electrical Specifications(For Medium Current Line Use)

CBM02(100505) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM02YTAG100	10	±25%	100	0.03	2000
CBM02YTAG300-1	30	±25%	100	0.03	1100
CBM02YTAG300-2	30	±25%	100	0.035	2200
CBM02YTAG600	60	±25%	100	0.075	1500
CBM02YTAG700	70	±25%	100	0.09	1200
CBM02YTAG800	80	±25%	100	0.10	1000
CBM02YTAG101	100	±25%	100	0.09	1200
CBM02YTAG121	120	±25%	100	0.09	1200
CBM02YTAG121-1	120	±25%	100	0.09	1300
CBM02YTAG181	180	±25%	100	0.14	1000
CBM02YTAG221	220	±25%	100	0.20	1000

CBM03(160808) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM03YTAG220	22	±25%	100	0.04	3000
CBM03YTAG300	30	±25%	100	0.04	3000
CBM03YTAG300-1	30	±25%	100	0.02	4000
CBM03YTAG300-2	30	±25%	100	0.03	3000
CBM03YTAG330	33	±25%	100	0.025	3000
CBM03YTAG330-1	33	±25%	100	0.04	3000
CBM03YTAG470	47	±25%	100	0.04	3000
CBM03YTAG600	60	±25%	100	0.04	3000
CBM03YTAG620	62	±25%	100	0.04	3000
CBM03YTAG101	100	±25%	100	0.05	3000
CBM03YTAG101-1	100	±25%	100	0.04	3000
CBM03YTAG101-2	100	±25%	100	0.03	3000
CBM03YTAG121	120	±25%	100	0.05	2000
CBM03YTAG121-3	120	±25%	100	0.03	3000
CBM03YTAG181	180	±25%	100	0.08	2000
CBM03YTAG221	220	±25%	100	0.08	2000
CBM03YTAG221-2	220	±25%	100	0.05	3000
CBM03YTAG301	300	±25%	100	0.15	2000
CBM03YTAG301-1	300	±25%	100	0.08	1000
CBM03YTAG331-1	330	±25%	100	0.07	2000
CBM03YTAG471	470	±25%	100	0.15	1500
CBM03YTAG471-1	470	±25%	100	0.25	1000
CBM03YTAG471-2	470	±25%	100	0.20	1000
CBM03YTAG601	600	±25%	100	0.30	1000
CBM03YTAG601-1	600	±25%	100	0.10	2000
CBM03YTAG751	750	±25%	100	0.30	1000
CBM03YTAG102	1000	±25%	100	0.25	1000

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTAG110	11	±25%	100	0.03	3000
CBM05YTAG170	17	±25%	100	0.03	3000
CBM05YTAG300	30	±25%	100	0.05	3000
CBM05YTAG300-1	30	±25%	100	0.03	3000
CBM05YTAG310	31	±25%	100	0.03	3000
CBM05YTAG390	39	±25%	100	0.03	3000
CBM05YTAG400	40	±25%	100	0.03	3000
CBM05YTAG470	47	±25%	100	0.03	3000
CBM05YTAG500	50	±25%	100	0.03	3000
CBM05YTAG520	52	±25%	100	0.03	3000
CBM05YTAG600	60	±25%	100	0.04	3000
CBM05YTAG800	80	±25%	100	0.04	3000
CBM05YTAG101	100	±25%	100	0.04	3000
CBM05YTAG121	120	±25%	100	0.05	3000
CBM05YTAG121-2	120	±25%	100	0.03	3000
CBM05YTAG181	180	±25%	100	0.05	3000
CBM05YTAG221	220	±25%	100	0.05	3000
CBM05YTAG301	300	±25%	100	0.05	3000
CBM05YTAG331	330	±25%	100	0.05	3000
CBM05YTAG471	470	±25%	100	0.10	2000
CBM05YTAG601	600	±25%	100	0.10	2000
CBM05YTAG601-1	600	±25%	100	0.30	1000
CBM05YTAG102	1000	±25%	100	0.30	1000
CBM05YTAG102-1	1000	±25%	100	0.12	1500
CBM05YTAG152	1500	±25%	100	0.30	1000

The maximum rated current : the DC current value having temperature increased 40℃ after thru DC current 2 hours at ambient temperature

■ Viking is capable to design according to customer special requirement

Standard Electrical Specifications(For Medium Current Line Use)

CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAG190	19	±25%	100	0.03	3000
CBM04YTAG310	31	±25%	100	0.03	3000
CBM04YTAG500	50	±25%	100	0.025	3000
CBM04YTAG520	52	±25%	100	0.03	3000
CBM04YTAG600	60	±25%	100	0.03	3000
CBM04YTAG700	70	±25%	100	0.04	3000
CBM04YTAG800	80	±25%	100	0.04	3000
CBM04YTAG900	90	±25%	100	0.04	3000
CBM04YTAG101	100	±25%	100	0.04	3000
CBM04YTAG121	120	±25%	100	0.05	3000
CBM04YTAG121-1	120	±25%	100	0.03	3000
CBM04YTAG151	150	±25%	100	0.05	3000
CBM04TTAG181	180	±25%	100	0.05	3000
CBM04YTAG201	200	±25%	100	0.05	3000
CBM04YTAG221	220	±25%	100	0.05	3000
CBM04YTAG301	300	±25%	100	0.06	3000
CBM04YTAG301-1	300	±25%	100	0.05	2500
CBM04YTAG391	390	±25%	100	0.07	2000
CBM04YTAG391-1	390	±25%	100	0.05	2000
CBM04YTAG501	500	±25%	100	0.07	2500
CBM04YTAG601	600	±25%	100	0.08	2000
CBM04YTAG601-1	600	±25%	100	0.07	2500
CBM04YTAG601-3	600	±25%	100	0.06	3000
CBM04YTAG102	1000	±25%	100	0.30	1000

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM10YTAG520	52	±25%	100	0.03	3000
CBM10YTAG600	60	±25%	100	0.03	3000

CBM08(451616) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM08YTAG600	60	±25%	100	0.04	3000
CBM08YTAG750	75	±25%	100	0.04	3000
CBM08YTAG800	80	±25%	100	0.04	3000
CBM08YTAG101	100	±25%	100	0.04	3000
CBM08YTAG151	150	±25%	100	0.04	3000
CBM08YTAG181	180	±25%	100	0.04	3000
CBM08YTAG601	600	±25%	100	0.09	2000
CBM08YTAG851	850	±25%	100	0.10	1500
CBM08YTAG102	1000	±25%	100	0.09	1500

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTAG121	120	±25%	100	0.04	3000
CBM12YTAG151	150	±25%	100	0.04	3000

CBM03(160808) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM03YTHG100	10	±25%	100	0.03	3000

CBM05(201209) / H Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTHG070	7	±25%	100	0.03	3000
CBM05YTHG100	10	±25%	100	0.03	3000

CBM05(201209) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTKG202	2000	±25%	100	0.03	1000

CBM12(453215) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTKG601	600	±25%	100	0.04	3000
CBM12YTKG781	780	±25%	100	0.04	3000
CBM12YTKG132-1	1300	±25%	60	0.05	2700

The maximum rated current : the DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

Viking is capable to design according to customer special requirement

Standard Electrical Specifications(For High Current Line Use)

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM3YTAH220	22	±25%	100	0.008	6000
CBM3YTAH260	26	±25%	100	0.007	6000
CBM3YTAH300	30	±25%	100	0.010	5000
CBM3YTAH330	33	±25%	100	0.008	6000
CBM3YTAH600	60	±25%	100	0.020	4000
CBM3YTAH700	70	±25%	100	0.020	4000

CBM05(201209) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM05YTAH170	17	±25%	100	0.008	6000
CBM05YTAH190	19	±25%	100	0.008	6000
CBM05YTAH220	22	±25%	100	0.008	6000
CBM05YTAH260	26	±25%	100	0.008	6000
CBM05YTAH300	30	±25%	100	0.008	6000
CBM05YTAH300-1	30	±25%	100	0.015	4000
CBM05YTAH330	33	±25%	100	0.008	6000
CBM05YTAH390	39	±25%	100	0.008	6000
CBM05YTAH500	50	±25%	100	0.020	6000
CBM05YTAH600	60	±25%	100	0.020	6000
CBM05YTAH800	80	±25%	100	0.020	6000
CBM05YTAH800-2	80	±25%	100	0.010	5000
CBM05YTAH101	100	±25%	100	0.020	5000
CBM05YTAH101-1	100	±25%	100	0.020	4000
CBM05YTAH121	120	±25%	100	0.020	4000
CBM05YTAH121-1	120	±25%	100	0.015	5000

CBM04(321611) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM04YTAH190	19	±25%	100	0.006	6000
CBM04YTAH260	26	±25%	100	0.006	6000
CBM04YTAH300	30	±25%	100	0.006	6000
CBM04YTAH310	31	±25%	100	0.006	6000
CBM04YTAH330	33	±25%	100	0.006	6000
CBM04YTAH480	48	±25%	100	0.008	6000
CBM04YTAH500	50	±25%	100	0.008	6000
CBM04YTAH520	52	±25%	100	0.008	6000
CBM04YTAH600	60	±25%	100	0.020	4000
CBM04YTAH800	80	±25%	100	0.020	4000
CBM04YTAH121	120	±25%	100	0.020	4000
CBM04YTAH121-1	120	±25%	100	0.012	6000

CBM10(322513) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM10YTAH520	52	±25%	100	0.008	6000
CBM10YTAH600	60	±25%	100	0.008	6000

CBM08(451616) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM08YTAH600	60	±25%	100	0.008	6000
CBM08YTAH750	75	±25%	100	0.008	6000
CBM08YTAH800	80	±25%	100	0.008	6000

CBM12(453215) / A Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTAH600	60	±25%	100	0.008	6000
CBM12YTAH800	80	±25%	100	0.008	6000
CBM12YTAH101-1	100	±25%	100	0.015	5000
CBM12YTAH121	120	±25%	100	0.020	6000
CBM12YTAH151	150	±25%	100	0.020	6000

The maximum rated current : the DC current value having temperature increased 40℃ after thru DC current 2 hours at ambient temperature

■Viking is capable to design according to customer special requirement

Standard Electrical Specifications(For High Current Line Use)

CBM12(453215) / K Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM12YTKH881	880	±25%	100	0.030	4000

CBM20(565030) / I Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM20YTIH801	800	±25%	100	0.010	8000

Standard Electrical Specifications(For High Frequency Line Use)

CBM02(100505) / A Material

Part No.	Impedance(Ω) @100MHz	Tolerance	Impedance(Ω) @1GHz	Tolerance	DCR (Ω) max.	Rated current (mA) max.
*CBM02YTAF301	300	±25%	560	±40%	0.800	200
*CBM02YTAF471	470	±25%	1000	±40%	1.000	100
*CBM02YTAF601	600	±25%	1100	±40%	1.200	100
*CBM02YTAF102	1000	±25%	1700	±40%	1.600	100
CBM02YTAF182	1800	±25%	1500	±40%	2.200	200

CBM03(160808) / A Material

Part No.	Impedance(Ω) @100MHz	Tolerance	Impedance(Ω) @1GHz	Tolerance	DCR (Ω) max.	Rated current (mA) max.
*CBM03YTAF471	470	±25%	500	±40%	0.700	200
*CBM03YTAF471-1	470	±25%	500	±40%	0.400	500
*CBM03YTAF601	600	±25%	600	±40%	0.900	100
*CBM03YTAF102	1000	±25%	1200	±40%	1.500	50
*CBM03YTAF102-1	1000	±25%	1200	±40%	1.200	100

Standard Electrical Specifications(For High Current /High Frequency Line Use)

CBM20(565020) / I Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	DCR (Ω) max.	Rated current (mA) max.
CBM20YTIC551	550	±25%	100	0.035	4000

The maximum rated current : the DC current value having temperature increased 40°C after thru DC current 2 hours at ambient temperature

*: Special part need to check by case

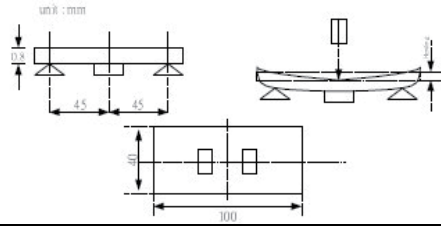
■ Viking is capable to design according to customer special requirement

■ Environmental Characteristics

Electrical Performance Test

Item	Specification	Test Methods
Impedance	Refer to standard electrical spec.	HP4286A
DCR		HP 4338 digital milli-ohm meter

Mechanical Performance Test

Item	Specification	Test Methods																											
Substrate Bending Test	SPEC substrate bending test DC resistance shall meet specifications	<p>Test device shall be soldered on the substrate Substrate Dimension:100x40x0.8mm Deflection: 3.0mm Keeping Time: 10sec and then return</p> 																											
Vibration	Appearance: No damage Impedance: within±30% of initial value	Frequency and Amplitude:10-2000-10Hz Direction: X,Y,Z Test duration:4 hours for each direction,12hours in total																											
Resistance to Soldering Heat	No visible damage Electrical characteristics and mechanical characteristics shall be satisfied	Solder temp: 265±3°C Immersion time: 6±1sec Preheating: 100°C to 150°C, 1 minute Measured after exposure in the room condition for 24hrs Solder: Sn-3Ag-0.5Cu																											
Solderability	95% min. coverage of all metabolized area	Solder Temperature: 240±5°C Immersion Time: 3±1sec Solder: Sn-3Ag-0.5Cu																											
Terminal Strength	Terminal strength does not distort the case shall meet SPEC DC resistance specifications	<table border="1"> <thead> <tr> <th>Size</th> <th>Force</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>0402</td> <td>300g (3N)</td> <td>60+1sec</td> </tr> <tr> <td>0603</td> <td>500g (5N)</td> <td>60+1sec</td> </tr> <tr> <td>0805</td> <td>600g (6N)</td> <td>60+1sec</td> </tr> <tr> <td>1204/1206</td> <td>1000g (10N)</td> <td>60+1sec</td> </tr> <tr> <td>1210</td> <td>1000g (10N)</td> <td>60+1sec</td> </tr> <tr> <td>1808</td> <td>1000g (10N)</td> <td>60+1sec</td> </tr> <tr> <td>1812</td> <td>1500g (15N)</td> <td>60+1sec</td> </tr> <tr> <td>2220</td> <td>2000g (20N)</td> <td>60+1sec</td> </tr> </tbody> </table>	Size	Force	Time	0402	300g (3N)	60+1sec	0603	500g (5N)	60+1sec	0805	600g (6N)	60+1sec	1204/1206	1000g (10N)	60+1sec	1210	1000g (10N)	60+1sec	1808	1000g (10N)	60+1sec	1812	1500g (15N)	60+1sec	2220	2000g (20N)	60+1sec
Size	Force	Time																											
0402	300g (3N)	60+1sec																											
0603	500g (5N)	60+1sec																											
0805	600g (6N)	60+1sec																											
1204/1206	1000g (10N)	60+1sec																											
1210	1000g (10N)	60+1sec																											
1808	1000g (10N)	60+1sec																											
1812	1500g (15N)	60+1sec																											
2220	2000g (20N)	60+1sec																											
Temperature Cycle	Appearance: No damage Impedance: within±30% of initial value	<p>One cycle: One cycle/step1: -55±5°C for 30±3min step2: Room temperature 2to5 min step3:125±5°C for 30±3min step4: Room temperature 2to5 min Total: 100cycles Measured after exposure in the room condition for 24hrs</p>																											
Humidity Resistance		<p>Temperature: 85±2°C Relative Humidity: 90 ~ 95% Applied Current: Rated Current(maximum value) Time: 1008±12hrs Measured after exposure in the room condition for 24hrs</p>																											
High Temperature Resistance		<p>Temperature: 125±2°C Applied Current: Rated Current(maximum value) Time: 1000±12hrs Measured after exposure in the room condition for 24hrs</p>																											
Mechanical Shock		<p>peak acceleration : 100 g's Duration of pulse : 6 ms Waveform : Half-sine Velocity change : 12.3 ft/sec Direction : X · Y · Z (3axes/3 times)</p>																											
Operational Life		<p>Temperature: 125±2°C Testing time : 1000±12hrs Measured after exposure in the room condition for 24hrs</p>																											
Electrostatic Discharge Test		<p>ESD voltage: 15k volts Mode 1:150 pF/330 Ohm Mode 2:150 pF/2000 Ohm</p>																											

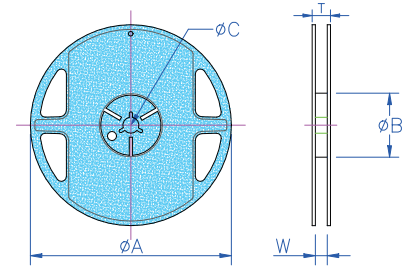
■ Operating Temperature: -55°C ~ 125°C

■ Storage Temperature: <40°C ; Humidity 30~70%RH

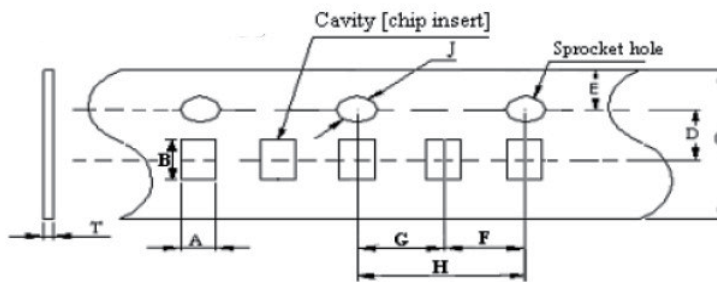
Packaging

Reel Specifications & Packaging Quantity

Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
CBM01	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	15000
CBM02	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	10000
CBM03	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	4000
CBM05	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	4000
CBM04	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	3000
CBM10	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	2000
CBM08	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	2000
CBM12	178.0±2.0	50.0 min	13.0±0.5	10±1.5	20.0 max	1000
CBM20	330±2	60±1	13.0±0.5	12±1.0	20.0 max	2000



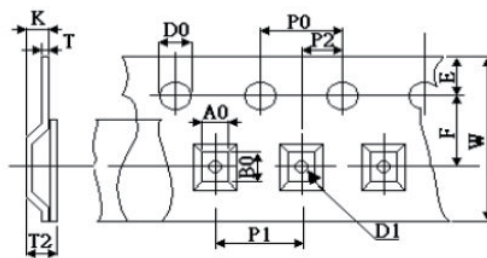
Paper Tape Specifications



Unit : mm

Type	A	B	C	D	E	F	G	H	J	T
CBM01	0.38±0.04	0.68±0.04	8.00±0.20	3.50±0.05	1.75±0.05	2.00±0.05	2.00±0.05	4.00±0.10	1.50+0.1/-0.0	1.10 max
CBM02	0.62±0.05	1.12±0.05	8.00±0.10	3.50±0.05	1.75±0.10	2.00±0.05	2.00±0.05	4.00±0.10	1.55±0.05	0.60±0.05
CBM03	1.03±0.05	1.85±0.10	8.00±0.10	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	0.95±0.05
CBM05	1.45±0.05	2.25±0.05	8.00±0.10	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	0.95±0.05

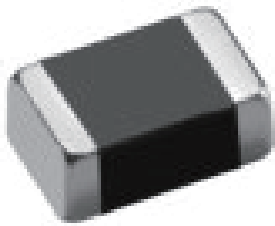
Embossed Plastic Tape Specifications



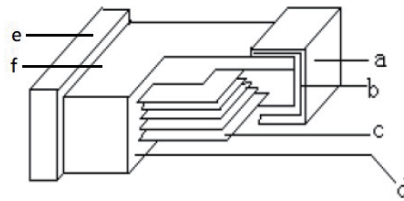
Unit : mm

Type	A0	B0	W	F	E	P1	P2	P0	D0	D1	K	T	T2
CBM04	1.88±0.10	3.50±0.10	8.00±0.20	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	1.00±0.10	1.49±0.15	0.22±0.05	1.49±0.25
CBM10	2.90±0.10	3.50±0.10	8.00±0.20	3.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	1.50±0.05	1.00±0.10	1.55±0.10	0.23±0.05	1.40±0.10
CBM08	1.93±0.10	4.95±0.10	12.00±0.20	5.50±0.05	1.75±0.10	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	1.50±0.10	2.17±0.15	0.24±0.05	2.17±0.25
CBM12	3.66±0.10	4.95±0.10	12.00±0.10	5.50±0.05	1.75±0.10	8.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	1.50±0.10	2.09±0.15	0.24±0.05	2.09±0.25
CBM20	5.36±0.10	5.77±0.10	12.00 +0.3/-0.1	5.50±0.05	1.75±0.10	8.00±0.10	2.00±0.05	4.00±0.10	1.50+0.1	1.50+0.25	3.73±0.10	0.305 ±0.013	3.73±0.20

Multilayer Chip Beads – CBF Series



Construction

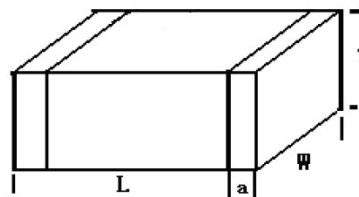


a	Ni/Sn Plating	d	Body
b	Ag Layer	e	Terminal Electrode
c	Inner Electrode	f	Ferrite

Features

- Effective EMI protection
- Low DC resistance
- High soldering heat resistance
- Multiple size availability

Dimensions



Applications

- Computers and Peripheral Equipment
- VCRS, Television, Paggers
- Cellular Phones
- Digital Communication Equipment
- Various Electronics Equipments

Type	Size (Inch)	L (mm)	W (mm)	T (mm)	a (mm)
CBF01	0201	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.10
CBF02	0402	1.00±0.15	0.50±0.15	0.50±0.15	0.25±0.10
CBF03	0603	1.60±0.20	0.80±0.20	0.80±0.20	0.30±0.20
CBF05	0805	2.00±0.20	1.20±0.20	0.90±0.20	0.50±0.30
CBF04	1204	3.20±0.20	1.60±0.20	0.90±0.20	0.50±0.30
CBF10	1210	3.20±0.20	2.50±0.20	1.30±0.20	0.50±0.30
CBF08	1808	4.50±0.20	1.60±0.20	1.60±0.20	0.50±0.30
CBF12	1812	4.50±0.20	3.20±0.20	1.50±0.20	0.50±0.30

Part Numbering

CBF	02	Y	T	U	N	101
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Material Code	Current	Impedance
	01: 0201 02: 0402 03: 0603 05: 0805 04: 1204 10: 1210 08: 1808 12: 1812	- : see Electrical Specifications 7: ±5Ω Y: ±25%	T: Taping Reel	U: U material X: X material	N: General Current H: Large current M: Ultra-High Current	110: 11Ω 101: 100Ω 102: 1000Ω

Standard Electrical Specifications

CBF01(060303) / X Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF017TXN100	10	±5Ω	100	50	0.10	500
CBF01YTXN700	70	±25%	100	50	0.40	200
CBF01YTXN800	80	±25%	100	50	0.40	200
CBF01YTXN121	120	±25%	100	50	0.50	200
CBF01YTXN241	240	±25%	100	50	0.80	200
CBF01YTXN601	600	±25%	100	50	1.50	100
CBF01YTXN102	1000	±25%	100	50	2.50	100

CBF02(100505) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF02-TUN000	0	0-15Ω	100	50	0.05	500
CBF02-TUN050	5	0-15Ω	100	50	0.05	500
CBF02-TUN070	7	0-11Ω	100	50	0.05	500
CBF02-TUN090	9	5-13Ω	100	50	0.05	500
CBF02-TUN110	11	7-15Ω	100	50	0.05	500
CBF02-TUN150	15	9-21Ω	100	50	0.05	500
CBF02-TUN190	19	12-25Ω	100	50	0.10	300
CBF02YTUN260	26	±25%	100	50	0.13	300
CBF02YTUN310	31	±25%	100	50	0.20	300
CBF02YTUN600	60	±25%	100	50	0.30	200
CBF02YTUN800	80	±25%	100	50	0.35	200
CBF02YTUN101	100	±25%	100	50	0.35	200
CBF02YTUN121	120	±25%	100	50	0.40	200
CBF02YTUN151	150	±25%	100	50	0.47	200
CBF02YTUN201	200	±25%	100	50	0.52	150
CBF02YTUN221	220	±25%	100	50	0.52	150
CBF02YTUN301	300	±25%	100	50	0.65	100
CBF02YTUN501	500	±25%	100	50	0.90	100
CBF02YTUN601	600	±25%	100	50	1.00	100
CBF02YTUN801	800	±25%	100	50	1.30	100
CBF02YTUN102	1000	±25%	100	50	1.40	100

CBF03(160808) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF03-TUN000	0	0-15Ω	100	50	0.05	2000
CBF03-TUN050	5	0-15Ω	100	50	0.05	2000
CBF03-TUN070	7	0-11Ω	100	50	0.05	2000
CBF03-TUN090	9	5-13Ω	100	50	0.05	2000
CBF03-TUN110	11	7-15Ω	100	50	0.05	2000
CBF03-TUN150	15	9-21Ω	100	50	0.05	2000
CBF03-TUN190	19	12-25Ω	100	50	0.05	2000
CBF03YTUN260	26	±25%	100	50	0.05	2000
CBF03YTUN310	31	±25%	100	50	0.05	1000
CBF03YTUN800	80	±25%	100	50	0.15	400
CBF03YTUN101	100	±25%	100	50	0.20	300
CBF03YTUN121	120	±25%	100	50	0.20	300
CBF03YTUN151	150	±25%	100	50	0.20	300
CBF03YTUN181	180	±25%	100	50	0.30	300
CBF03YTUN221	220	±25%	100	50	0.30	300
CBF03YTUN301	300	±25%	100	50	0.35	200
CBF03YTUN501	500	±25%	100	50	0.45	200
CBF03YTUN601	600	±25%	100	50	0.45	200
CBF03YTUN801	800	±25%	100	50	0.60	200
CBF03YTUN102	1000	±25%	100	50	0.60	200
CBF03YTUN122	1200	±25%	100	50	0.70	200
CBF03YTUN152	1500	±25%	100	50	0.70	200
CBF03YTUN182	1800	±25%	100	50	0.90	150
CBF03YTUN202	2000	±25%	100	50	1.10	150
CBF03YTUN222	2200	±25%	100	50	1.20	100
CBF03YTUN252	2500	±25%	100	50	1.30	50

Standard Electrical Specifications

CBF05(201209) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF05-TUN000	0	0-15Ω	100	50	0.04	2200
CBF05-TUN050	5	0-15Ω	100	50	0.04	2200
CBF05-TUN070	7	0-11Ω	100	50	0.04	2200
CBF05-TUN090	9	5-13Ω	100	50	0.04	2200
CBF05-TUN110	11	7-15Ω	100	50	0.04	2200
CBF05-TUN150	15	9-21Ω	100	50	0.04	2200
CBF05-TUN190	19	12-25Ω	100	50	0.04	2200
CBF05YTUN260	26	±25%	100	50	0.05	1500
CBF05YTUN310	31	±25%	100	50	0.05	1500
CBF05YTUN360	36	±25%	100	50	0.05	1500
CBF05YTUN600	60	±25%	100	50	0.10	1000
CBF05YTUN700	70	±25%	100	50	0.10	1000
CBF05YTUN800	80	±25%	100	50	0.10	1000
CBF05YTUN101	100	±25%	100	50	0.15	800
CBF05YTUN121	120	±25%	100	50	0.15	800
CBF05YTUN151	150	±25%	100	50	0.18	700
CBF05YTUN181	180	±25%	100	50	0.18	700
CBF05YTUN221	220	±25%	100	50	0.20	600
CBF05YTUN301	300	±25%	100	50	0.20	600
CBF05YTUN501	500	±25%	100	50	0.30	550
CBF05YTUN601	600	±25%	100	50	0.30	550
CBF05YTUN801	800	±25%	100	50	0.35	500
CBF05YTUN102	1000	±25%	100	50	0.35	500
CBF05YTUN122	1200	±25%	100	50	0.40	500
CBF05YTUN152	1500	±25%	100	50	0.40	500
CBF05YTUN202	2000	±25%	100	50	0.45	500
CBF05YTUN222	2200	±25%	100	50	0.45	500
CBF05YTUN252	2500	±25%	50	50	0.50	400
CBF05YTUN272	2700	±25%	50	50	0.60	200
CBF05YTUN302	3000	±25%	50	50	0.60	200

CBF04(321609) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF04-TUN000	0	0-15Ω	100	50	0.05	2200
CBF04-TUN050	5	0-15Ω	100	50	0.05	2200
CBF04-TUN070	7	0-11Ω	100	50	0.05	2200
CBF04-TUN090	9	5-13Ω	100	50	0.05	2000
CBF04-TUN110	11	7-15Ω	100	50	0.05	2000
CBF04-TUN150	15	9-21Ω	100	50	0.05	2000
CBF04-TUN190	19	12-25Ω	100	50	0.05	2000
CBF04YTUN260	26	±25%	100	50	0.05	2000
CBF04YTUN310	31	±25%	100	50	0.05	2000
CBF04YTUN600	60	±25%	100	50	0.10	1000
CBF04YTUN700	70	±25%	100	50	0.10	1000
CBF04YTUN800	80	±25%	100	50	0.10	1000
CBF04YTUN101	100	±25%	100	50	0.10	1000
CBF04YTUN121	120	±25%	100	50	0.10	1000
CBF04YTUN151	150	±25%	100	50	0.15	1000
CBF04YTUN181	180	±25%	100	50	0.15	1000
CBF04YTUN221	220	±25%	100	50	0.20	800
CBF04YTUN301	300	±25%	100	50	0.20	800
CBF04YTUN501	500	±25%	100	50	0.30	600
CBF04YTUN601	600	±25%	100	50	0.30	600
CBF04YTUN801	800	±25%	100	50	0.35	600
CBF04YTUN102	1000	±25%	100	50	0.35	600
CBF04YTUN122	1200	±25%	100	50	0.60	300
CBF04YTUN152	1500	±25%	50	50	0.60	300
CBF04YTUN182	1800	±25%	50	50	0.80	100
CBF04YTUN202	2000	±25%	50	50	1.00	100
CBF04YTUN252	2500	±25%	50	50	1.20	50
CBF04YTUN302	3000	±25%	50	50	1.50	50

Large Current Electrical Specifications

CBF01(060603) / X Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF017TXH100	10	±5Ω	100	50	0.05	1000
CBF01YTXH800	80	±25%	100	50	0.18	500
CBF01YTXH121	120	±25%	100	50	0.23	450
CBF01YTXH241	240	±25%	100	50	0.38	350
CBF01YTXH601	600	±25%	100	50	0.85	250
CBF01YTXH102	1000	±25%	100	50	1.25	200

CBF02(100505) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF02-TUH000	0	0-15Ω	100	50	0.04	1800
CBF02-TUH050	5	0-15Ω	100	50	0.04	1800
CBF02-TUH070	7	0-11Ω	100	50	0.04	1800
CBF02-TUH090	9	5-13Ω	100	50	0.04	1800
CBF02-TUH110	11	7-15Ω	100	50	0.04	1800
CBF02-TUH150	15	9-21Ω	100	50	0.04	1800
CBF02-TUH190	19	12-25Ω	100	50	0.06	1800
CBF02YTUH260	26	±25%	100	50	0.06	1800
CBF02YTUH310	31	±25%	100	50	0.08	1800
CBF02YTUH600	60	±25%	100	50	0.13	1000
CBF02YTUH800	80	±25%	100	50	0.17	1000
CBF02YTUH101	100	±25%	100	50	0.20	900
CBF02YTUH121	120	±25%	100	50	0.25	700
CBF02YTUH151	150	±25%	100	50	0.25	700
CBF02YTUH201	200	±25%	100	50	0.30	700
CBF02YTUH221	220	±25%	100	50	0.30	700
CBF02YTUH301	300	±25%	100	50	0.40	400
CBF02YTUH501	500	±25%	100	50	0.60	300
CBF02YTUH601	600	±25%	100	50	0.60	300
CBF02YTUH801	800	±25%	100	50	0.80	250
CBF02YTUH102	1000	±25%	100	50	0.90	250

CBF03(160808) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF03-TUH000	0	0-15Ω	100	50	0.02	3000
CBF03-TUH050	5	0-15Ω	100	50	0.02	3000
CBF03-TUH070	7	0-11Ω	100	50	0.02	3000
CBF03-TUH090	9	5-13Ω	100	50	0.02	3000
CBF03-TUH110	11	7-15Ω	100	50	0.02	3000
CBF03-TUH150	15	9-21Ω	100	50	0.03	3000
CBF03-TUH190	19	12-25Ω	100	50	0.03	3000
CBF03YTUH260	26	±25%	100	50	0.03	3000
CBF03YTUH310	31	±25%	100	50	0.03	3000
CBF03YTUH800	80	±25%	100	50	0.10	1500
CBF03YTUH101	100	±25%	100	50	0.12	1400
CBF03YTUH121	120	±25%	100	50	0.14	1300
CBF03YTUH151	150	±25%	100	50	0.15	1200
CBF03YTUH181	180	±25%	100	50	0.15	1200
CBF03YTUH221	220	±25%	100	50	0.18	1200
CBF03YTUH301	300	±25%	100	50	0.20	1200
CBF03YTUH501	500	±25%	100	50	0.30	1000
CBF03YTUH601	600	±25%	100	50	0.30	1000
CBF03YTUH801	800	±25%	100	50	0.35	500
CBF03YTUH102	1000	±25%	100	50	0.40	500
CBF03YTUH122	1200	±25%	100	50	0.45	500
CBF03YTUH152	1500	±25%	100	50	0.55	400
CBF03YTUH182	1800	±25%	100	50	0.55	400
CBF03YTUH202	2000	±25%	100	50	0.60	400
CBF03YTUH252	2500	±25%	100	50	0.65	400

Large Current Electrical Specifications

CBF05(201209) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF05-TUH000	0	0-15Ω	100	50	0.02	3000
CBF05-TUH050	5	0-15Ω	100	50	0.02	3000
CBF05-TUH070	7	0-11Ω	100	50	0.02	3000
CBF05-TUH090	9	5-13Ω	100	50	0.02	3000
CBF05-TUH110	11	7-15Ω	100	50	0.02	3000
CBF05-TUH150	15	9-21Ω	100	50	0.02	3000
CBF05-TUH190	19	12-25Ω	100	50	0.02	3000
CBF05YTUH300	30	±25%	100	50	0.04	3000
CBF05YTUH310	31	±25%	100	50	0.04	3000
CBF05YTUH360	36	±25%	100	50	0.04	3000
CBF05YTUH600	60	±25%	100	50	0.05	3000
CBF05YTUH800	80	±25%	100	50	0.06	3000
CBF05YTUH101	100	±25%	100	50	0.08	2500
CBF05YTUH121	120	±25%	100	50	0.08	2500
CBF05YTUH151	150	±25%	100	50	0.10	2500
CBF05YTUH181	180	±25%	100	50	0.12	2000
CBF05YTUH201	200	±25%	100	50	0.12	2000
CBF05YTUH221	220	±25%	100	50	0.13	2000
CBF05YTUH301	300	±25%	100	50	0.13	2000
CBF05YTUH331	330	±25%	100	50	0.15	2000
CBF05YTUH501	500	±25%	100	50	0.22	1500
CBF05YTUH601	600	±25%	100	50	0.22	1500
CBF05YTUH801	800	±25%	100	50	0.25	1000
CBF05YTUH102	1000	±25%	100	50	0.25	1000
CBF05YTUH122	1200	±25%	100	50	0.28	800
CBF05YTUH202	2000	±25%	100	50	0.40	700
CBF05YTUH222	2200	±25%	100	50	0.40	700
CBF05YTUH252	2500	±25%	50	50	0.45	600

CBF04(321609) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF04-TUH000	0	0-15Ω	100	50	0.04	4000
CBF04-TUH050	5	0-15Ω	100	50	0.04	4000
CBF04-TUH070	7	0-11Ω	100	50	0.04	4000
CBF04-TUH090	9	5-13Ω	100	50	0.04	4000
CBF04-TUH110	11	7-15Ω	100	50	0.04	4000
CBF04-TUH150	15	9-21Ω	100	50	0.04	3000
CBF04-TUH190	19	12-25Ω	100	50	0.04	3000
CBF04YTUH260	26	±25%	100	50	0.04	3000
CBF04YTUH280	28	±25%	100	50	0.04	3000
CBF04YTUH300	30	±25%	100	50	0.04	3000
CBF04YTUH310	31	±25%	100	50	0.04	3000
CBF04YTUH500	50	±25%	100	50	0.04	3000
CBF04YTUH600	60	±25%	100	50	0.04	3000
CBF04YTUH700	70	±25%	100	50	0.07	3000
CBF04YTUH800	80	±25%	100	50	0.07	3000
CBF04YTUH101	100	±25%	100	50	0.07	3000
CBF04YTUH121	120	±25%	100	50	0.07	3000
CBF04YTUH151	150	±25%	100	50	0.10	2500
CBF04YTUH181	180	±25%	100	50	0.10	2500
CBF04YTUH221	220	±25%	100	50	0.11	2500
CBF04YTUH301	300	±25%	100	50	0.15	2000
CBF04YTUH501	500	±25%	100	50	0.20	2000
CBF04YTUH601	600	±25%	100	50	0.20	2000
CBF04YTUH801	800	±25%	100	50	0.25	2000
CBF04YTUH102	1000	±25%	100	50	0.25	2000
CBF04YTUH122	1200	±25%	100	50	0.35	1500
CBF04YTUH152	1500	±25%	50	50	0.45	500
CBF04YTUH182	1800	±25%	50	50	0.60	500
CBF04YTUH202	2000	±25%	50	50	0.70	300
CBF04YTUH252	2500	±25%	50	50	0.90	200
CBF04YTUH302	3000	±25%	50	50	0.90	200

Large Current Electrical Specifications

CBF10(322513) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF10-TUH110	11	7-15Ω	100	50	0.03	5000
CBF10-TUH150	15	9-21Ω	100	50	0.03	5000
CBF10-TUH190	19	12-25Ω	100	50	0.03	5000
CBF10Y TUH260	26	±25%	100	50	0.03	5000
CBF10Y TUH310	31	±25%	100	50	0.03	5000
CBF10Y TUH600	60	±25%	100	50	0.03	5000
CBF10Y TUH700	70	±25%	100	50	0.03	5000
CBF10Y TUH800	80	±25%	100	50	0.03	5000
CBF10Y TUH900	90	±25%	100	50	0.04	4000
CBF10Y TUH121	120	±25%	100	50	0.06	4000
CBF10Y TUH151	150	±25%	100	50	0.08	4000
CBF10Y TUH301	300	±25%	100	50	0.08	3000
CBF10Y TUH501	500	±25%	100	50	0.12	3000
CBF10Y TUH601	600	±25%	100	50	0.18	2000
CBF10Y TUH801	800	±25%	100	50	0.23	2000
CBF10Y TUH102	1000	±25%	100	50	0.28	2000

CBF08(451616) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF08-TUH190	19	12-25Ω	100	50	0.015	6000
CBF08Y TUH260	26	±25%	100	50	0.02	6000
CBF08Y TUH310	31	±25%	100	50	0.02	6000
CBF08Y TUH600	60	±25%	100	50	0.025	6000
CBF08Y TUH750	75	±25%	100	50	0.04	6000
CBF08Y TUH800	80	±25%	100	50	0.05	3000
CBF08Y TUH900	90	±25%	100	50	0.06	3000
CBF08Y TUH121	120	±25%	100	50	0.06	3000
CBF08Y TUH151	150	±25%	100	50	0.06	3000
CBF08Y TUH221	220	±25%	100	50	0.08	2000
CBF08Y TUH301	300	±25%	100	50	0.09	2000
CBF08Y TUH501	500	±25%	100	50	0.20	1500
CBF08Y TUH601	600	±25%	100	50	0.20	1500

CBF12(453215) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF12Y TUH260	26	±25%	100	50	0.02	5000
CBF12Y TUH280	28	±25%	100	50	0.02	5000
CBF12Y TUH300	30	±25%	100	50	0.02	5000
CBF12Y TUH310	31	±25%	100	50	0.02	5000
CBF12Y TUH380	38	±25%	100	50	0.02	5000
CBF12Y TUH400	40	±25%	100	50	0.02	4000
CBF12Y TUH500	50	±25%	100	50	0.02	4000
CBF12Y TUH600	60	±25%	100	50	0.02	4000
CBF12Y TUH700	70	±25%	100	50	0.02	4000
CBF12Y TUH800	80	±25%	100	50	0.02	4000
CBF12Y TUH900	90	±25%	100	50	0.02	4000
CBF12Y TUH101	100	±25%	100	50	0.03	4000
CBF12Y TUH121	120	±25%	100	50	0.03	4000
CBF12Y TUH151	150	±25%	100	50	0.04	3500
CBF12Y TUH181	180	±25%	100	50	0.06	3000
CBF12Y TUH201	200	±25%	100	50	0.06	3000
CBF12Y TUH221	220	±25%	100	50	0.06	2000
CBF12Y TUH301	300	±25%	100	50	0.06	2000
CBF12Y TUH401	400	±25%	100	50	0.08	1000
CBF12Y TUH501	500	±25%	100	50	0.10	1000
CBF12Y TUH601	600	±25%	100	50	0.10	1000

■ Ultra High Current Electrical Specifications

CBF01(060303) / X Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.	
						85°C	125°C
CBF01YTXM220	22	±25%	100	50	0.04	1800	1450
CBF01YTXM330	33	±25%	100	50	0.055	1500	1200
CBF01YTXM800	80	±25%	100	50	0.13	1000	800
CBF01YTXM121	120	±25%	100	50	0.16	900	700

CBF02(100505) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF02-TUM000	0	0-15Ω	100	50	0.02	2000
CBF02-TUM050	5	0-15Ω	100	50	0.02	2000
CBF02-TUM070	7	0-11Ω	100	50	0.02	2000
CBF02-TUM090	9	5-13Ω	100	50	0.02	2000
CBF02-TUM110	11	7-15Ω	100	50	0.02	2000
CBF02-TUM150	15	9-21Ω	100	50	0.02	2000
CBF02-TUM190	19	12-25Ω	100	50	0.035	1700
CBF02YTUM260	26	±25%	100	50	0.06	1500
CBF02YTUM300	30	±25%	100	50	0.06	1500
CBF02YTUM600	60	±25%	100	50	0.10	1300
CBF02YTUM101	100	±25%	100	50	0.15	1000
CBF02YTUM121	120	±25%	100	50	0.15	1000
CBF02YTUM151	150	±25%	100	50	0.20	700
CBF02YTUM201	200	±25%	100	50	0.25	700
CBF02YTUM221	220	±25%	100	50	0.28	700
CBF02YTUM301	300	±25%	100	50	0.30	600
CBF02YTUM501	500	±25%	100	50	0.40	500
CBF02YTUM601	600	±25%	100	50	0.50	500
CBF02YTUM801	800	±25%	100	50	0.65	300
CBF02YTUM102	1000	±25%	100	50	0.65	300

CBF03(160808) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF03-TUM000	0	0-15Ω	100	50	0.01	6000
CBF03-TUM050	5	0-15Ω	100	50	0.01	6000
CBF03-TUM070	7	0-11Ω	100	50	0.01	6000
CBF03-TUM090	9	5-13Ω	100	50	0.01	6000
CBF03-TUM110	11	7-15Ω	100	50	0.01	6000
CBF03-TUM150	15	9-21Ω	100	50	0.01	6000
CBF03-TUM190	19	12-25Ω	100	50	0.01	6000
CBF03YTUM260	26	±25%	100	50	0.03	4000
CBF03YTUM300	30	±25%	100	50	0.03	4000
CBF03YTUM600	60	±25%	100	50	0.04	3000
CBF03YTUM750	75	±25%	100	50	0.06	2500
CBF03YTUM101	100	±25%	100	50	0.06	2500
CBF03YTUM121	120	±25%	100	50	0.065	2000
CBF03YTUM151	150	±25%	100	50	0.07	1500
CBF03YTUM181	180	±25%	100	50	0.09	1500
CBF03YTUM221	220	±25%	100	50	0.12	1500
CBF03YTUM301	300	±25%	100	50	0.15	1500
CBF03YTUM331	330	±25%	100	50	0.18	1300
CBF03YTUM501	500	±25%	100	50	0.18	1300
CBF03YTUM601	600	±25%	100	50	0.18	1300
CBF03YTUM801	800	±25%	100	50	0.30	800
CBF03YTUM102	1000	±25%	100	50	0.35	700

Ultra High Current Electrical Specifications

CBF05(201209) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF05-TUM000	0	0-15Ω	100	50	0.01	6000
CBF05-TUM050	5	0-15Ω	100	50	0.01	6000
CBF05-TUM070	7	0-11Ω	100	50	0.01	6000
CBF05-TUM090	9	5-13Ω	100	50	0.01	6000
CBF05-TUM110	11	7-15Ω	100	50	0.01	6000
CBF05-TUM150	15	9-21Ω	100	50	0.01	6000
CBF05-TUM190	19	12-25Ω	100	50	0.01	6000
CBF05YTUM300	30	±25%	100	50	0.01	6000
CBF05YTUM310	31	±25%	100	50	0.01	6000
CBF05YTUM500	50	±25%	100	50	0.03	4000
CBF05YTUM600	60	±25%	100	50	0.03	4000
CBF05YTUM800	80	±25%	100	50	0.04	4000
CBF05YTUM121	120	±25%	100	50	0.045	4000
CBF05YTUM181	180	±25%	100	50	0.07	3000
CBF05YTUM221	220	±25%	100	50	0.07	3000
CBF05YTUM301	300	±25%	100	50	0.08	2500
CBF05YTUM501	500	±25%	100	50	0.09	2500
CBF05YTUM601	600	±25%	100	50	0.10	2000
CBF05YTUM102	1000	±25%	100	50	0.12	1500

CBF04(321609) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF04-TUM000	0	0-15Ω	100	50	0.01	6000
CBF04-TUM050	5	0-15Ω	100	50	0.01	6000
CBF04-TUM070	7	0-11Ω	100	50	0.01	6000
CBF04-TUM090	9	5-13Ω	100	50	0.01	6000
CBF04-TUM110	11	7-15Ω	100	50	0.01	6000
CBF04-TUM150	15	9-21Ω	100	50	0.015	6000
CBF04-TUM190	19	12-25Ω	100	50	0.015	6000
CBF04YTUM260	26	±25%	100	50	0.015	6000
CBF04YTUM280	28	±25%	100	50	0.015	6000
CBF04YTUM300	30	±25%	100	50	0.015	6000
CBF04YTUM310	31	±25%	100	50	0.02	5000
CBF04YTUM500	50	±25%	100	50	0.02	5000
CBF04YTUM600	60	±25%	100	50	0.025	5000
CBF04YTUM700	70	±25%	100	50	0.035	4000
CBF04YTUM800	80	±25%	100	50	0.035	4000
CBF04YTUM121	120	±25%	100	50	0.035	4000
CBF04YTUM151	150	±25%	100	50	0.045	3000
CBF04YTUM221	220	±25%	100	50	0.055	3000
CBF04YTUM301	300	±25%	100	50	0.065	2500
CBF04YTUM501	500	±25%	100	50	0.08	2500
CBF04YTUM601	600	±25%	100	50	0.085	2200
CBF04YTUM801	800	±25%	100	50	0.11	2100
CBF04YTUM102	1000	±25%	100	50	0.12	2100

CBF10(322513) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF10-TUM110	11	7-15Ω	100	50	0.02	6000
CBF10-TUM150	15	9-21Ω	100	50	0.02	6000
CBF10-TUM190	19	12-25Ω	100	50	0.02	6000
CBF10YTUM260	26	±25%	100	50	0.02	6000
CBF10YTUM310	31	±25%	100	50	0.02	6000
CBF10YTUM600	60	±25%	100	50	0.02	6000
CBF10YTUM700	70	±25%	100	50	0.02	6000
CBF10YTUM800	80	±25%	100	50	0.02	6000
CBF10YTUM900	90	±25%	100	50	0.03	5000
CBF10YTUM121	120	±25%	100	50	0.03	5000
CBF10YTUM151	150	±25%	100	50	0.03	5000
CBF10YTUM301	300	±25%	100	50	0.06	4000
CBF10YTUM501	500	±25%	100	50	0.10	4000
CBF10YTUM601	600	±25%	100	50	0.15	3000
CBF10YTUM801	800	±25%	100	50	0.20	2500
CBF10YTUM102	1000	±25%	100	50	0.23	2500

■ Ultra High Current Electrical Specifications

CBF08(451616) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF08-TUM190	19	12-25Ω	100	50	0.009	6000
CBF08YTUM260	26	±25%	100	50	0.009	6000
CBF08YTUM310	31	±25%	100	50	0.009	6000
CBF08YTUM600	60	±25%	100	50	0.009	6000
CBF08YTUM750	75	±25%	100	50	0.02	6000
CBF08YTUM800	80	±25%	100	50	0.02	3500

CBF12(453125) / U Material

Part No.	Impedance (Ω)	Tolerance	Test Frequency (MHz)	Test Voltage (mV)	RDC (Ω) max.	Rated Current (mA) max.
CBF12-TUM190	19	12-25Ω	100	50	0.01	6000
CBF12YTUM260	26	±25%	100	50	0.01	6000
CBF12YTUM280	28	±25%	100	50	0.01	6000
CBF12YTUM300	30	±25%	100	50	0.01	6000
CBF12YTUM310	31	±25%	100	50	0.01	6000
CBF12YTUM380	38	±25%	100	50	0.01	6000
CBF12YTUM400	40	±25%	100	50	0.01	6000
CBF12YTUM500	50	±25%	100	50	0.01	6000
CBF12YTUM600	60	±25%	100	50	0.01	6000
CBF12YTUM700	70	±25%	100	50	0.01	6000
CBF12YTUM101	100	±25%	100	50	0.02	6000
CBF12YTUM181	180	±25%	100	50	0.02	6000
CBF12YTUM221	220	±25%	100	50	0.02	6000
CBF12YTUM501	500	±25%	100	50	0.08	4000
CBF12YTUM601	600	±25%	100	50	0.08	4000

Environmental Characteristics

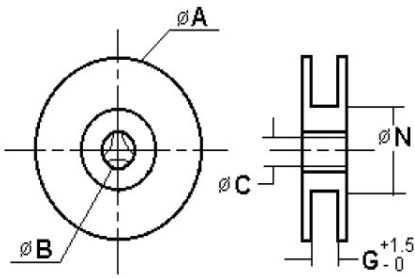
Item	Specification	Test Methods
Operating Temperature Range	-55°C ~ 125°C	Includes product surface temperature rise.
Bending Strength	No mechanical damage.	Testing board : glass epoxy-resin substrate For 0.5mm/s compression speed, Curvature: 2mm, hold time 20±1s PCB thickness:1.6±0.2mm or 0.8±0.1mm
Vibration	No mechanical damage. Impedance change: within ±30%	Amplitude modulation: 1.5 mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
Resistance to Soldering	At least 95% of terminal electrode should be covered with solder. No mechanical damage. Inductance: Impedance change: within ±30%	Preheating temperature:120°C to 150°C Preheating time:60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder Solder temperature:260±5°C Immersion tin depth:10mm Duration:10±1s Dip performance to a flux of about:3~5s
Solder ability	At least 95% of terminal electrode should be covered with solder.	Preheating temperature:120°C to 150°C Preheating time:60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder Solder temperature:245±5°C Immersion tin depth:10mm Duration:5±1s Dip performance to a flux of about:3~5s
Adhesion of Electrode	The termination and body should be no damage.	Applied force: 3N force for 0201 series;5N force for 0402 series;7N force for 0603 series; 10N force for 0805 · 1206 series;15N force for 1210 · 1808 · 1812 series. Keep time: 10±1s.
Temperature Shock		Temperature: -55°C for 30±3min +125°C for 30±3min Number of cycles:100
Static Humidity	No mechanical damage Impedance change: within ±30%	Temperature: 60±2°C Humidity: 90 ~ 95%RH Testing Time: 1000+24/-0hrs
High Temperature Resistance		Temperature: 125±2°C Testing Time: 1000+24/-0hrs
Low Temperature Resistance		Temperature: -55±2°C Testing Time: 1000+24/-0hrs
High Temperature Load		Impose current: at room Testing Time: 1000+24/-0hrs Temperature: 85±2°C

Note: When there are questions concerning, measurement shall be made after 24±2hrs of recovery under the standard condition.

■ **Storage Temperature:** -10 ~ 40°C ; **Humidity:** 30~70%RH

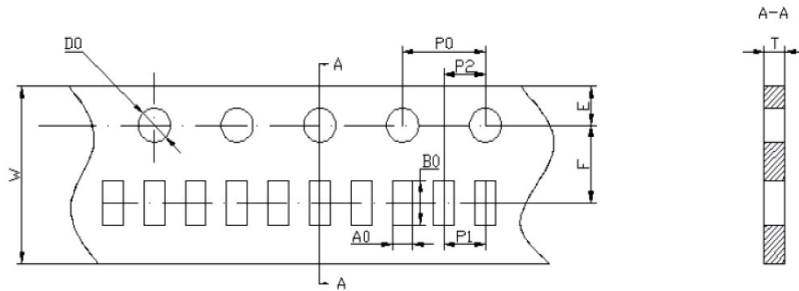
■ Packaging

Reel Specifications & Dimension



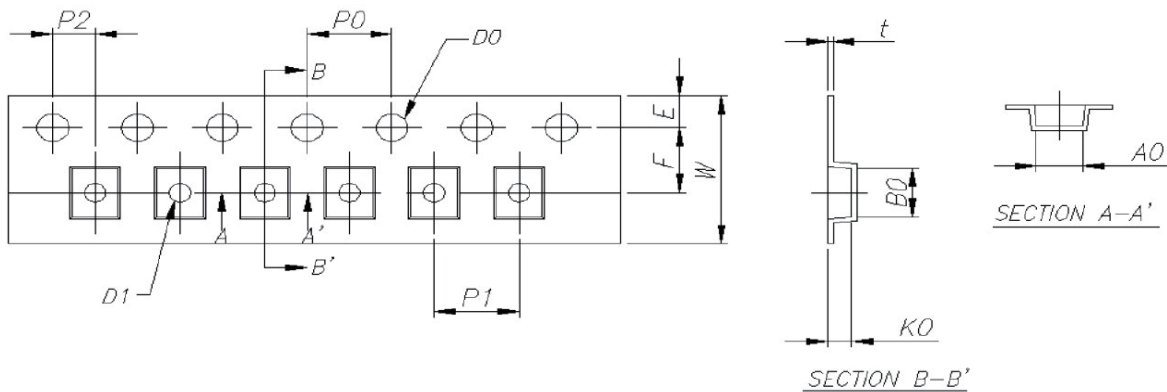
Reel Size	A (mm)	B (mm)	C (mm)	N (mm)	G (mm)
7"	178±2.0	22±2.0	12.5±1.5	57±2.0	8
13"	330±2.0	22±2.0	12.5±1.5	98±2.0	12

Paper Tape Specifications & Dimension



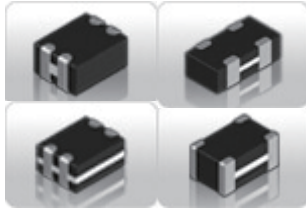
Type	A0 (mm)	B0 (mm)	W (mm)	F (mm)	E (mm)	P1 (mm)	P2 (mm)	P0 (mm)	D0 (mm)	T (mm)	Quantity (EA)
CBF01	0.35±0.03	0.66±0.03	8.0±0.1	3.5±0.05	1.75±0.05	2.0±0.05	2.0±0.05	4.0±0.05	1.55±0.05	0.42±0.03	15,000
CBF02	0.65±0.1	1.15±0.1	8.0±0.2	3.5±0.1	1.75±0.2	2.0±0.1	2.0±0.1	4.0±0.2	1.55±0.1	0.60±0.1	10,000
CBF03	1.10±0.2	1.90±0.2	8.0±0.2	3.5±0.1	1.75±0.2	4.0±0.2	2.0±0.1	4.0±0.2	1.55±0.1	0.95±0.1	4,000
CBF05	1.50±0.2	2.30±0.2	8.0±0.2	3.5±0.1	1.75±0.2	4.0±0.2	2.0±0.1	4.0±0.2	1.55±0.1	0.95±0.1	4,000
CBF04	1.90±0.2	3.50±0.2	8.0±0.2	3.5±0.1	1.75±0.2	4.0±0.2	2.0±0.1	4.0±0.2	1.55±0.1	0.95±0.1	4,000

Embossed Tape Specifications & Dimension



Type	W (mm)	E (mm)	F (mm)	D0 (mm)	D1 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	t (mm)	Quantity (EA)
CBF10	8.00 ±0.20	1.75 ±0.10	3.50 ±0.10	1.50 ±0.10	1.00 ±0.10	4.00 ±0.10	4.00 ±0.10	2.00 ±0.05	2.77 ±0.10	3.42 ±0.10	1.55 ±0.10	0.23 ±0.20	3,000
CBF08	12.00 ±0.20	1.75 ±0.10	5.50 ±0.10	1.50 ±0.10	1.50 ±0.10	4.00 ±0.10	4.00 ±0.10	2.00 ±0.10	1.93 ±0.10	4.95 ±0.10	1.93 ±0.10	0.24 ±0.20	5,000
CBF12	12.00 ±0.20	1.75 ±0.10	5.50 ±0.10	1.50 ±0.10	1.50 ±0.10	4.00 ±0.10	8.00 ±0.10	2.00 ±0.10	3.66 ±0.10	4.95 ±0.10	1.85 ±0.10	0.24 ±0.20	3,000

Multilayer Chip Common Mode Filter – CMX Series

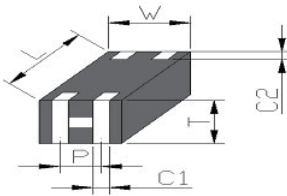


■ Features And Application

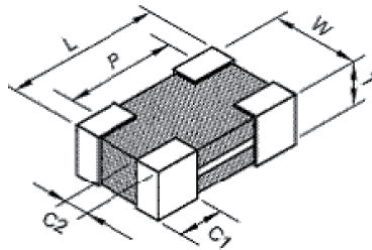
- Powerful components with composite co-fired material to solve EMI problem for high speed differential signal transmission line as USB, and LVDS, without distortion to high speed signal transmission.
- MIPI, MHL or HDMI, etc., serial interface in mobile device

■ Dimensions

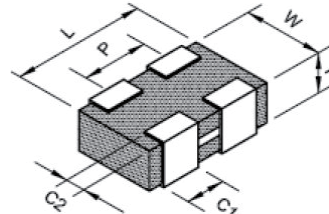
CMX04B



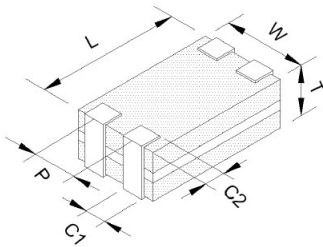
CMX05B



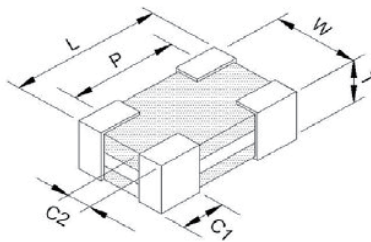
CMX06B



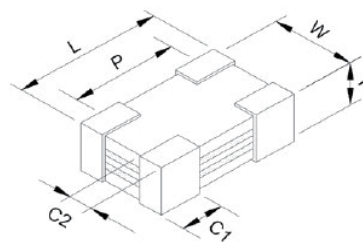
CMX04G



CMX05G



CMX05GYT500F



Unit: mm

Type	Sizes (Inch)	L	W	T	P	C1	C2
CMX04B	0504	1.25±0.10	1.00±0.10	0.60±0.10	0.50±0.10	0.30±0.10	0.20±0.15
CMX05B	0805	2.00±0.20	1.25±0.20	1.00±0.10	1.60±0.20	0.40±0.20	0.30±0.20
CMX06B	1206	3.20±0.20	1.60±0.20	1.00±0.10	2.10±0.20	0.70±0.20	0.30±0.20
CMX04G	0504	1.25±0.10	1.00±0.10	0.50±0.10	0.55±0.10	0.30±0.10	0.20±0.15
CMX05G	0805	2.00±0.20	1.20±0.20	1.00±0.10	1.60±0.20	0.40±0.20	0.30±0.20

■ Part Numbering

CMX	05B	Y	T	900	
Product Type	Dimensions LxW	Impedance Tolerance	Packaging Code	Impedance	Function Code
	04B: 0504 05B: 0805 06B: 1206 04G: 0504 05G: 0805	Y: ±25%	T: Taping Reel	670: 67Ω 900: 90Ω 121: 120Ω	: General F: High Cut-off Frequency U: Ultra High Cut-off Frequency

Standard Electrical Specifications

CMX04B Multilayer Chip Common Mode Filter / General Use

Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
CMX04BYT670	67	±25%	100	0.50	300	10	25	200
CMX04BYT900	90	±25%	100	0.60	300	10	25	200
CMX04BYT121	120	±25%	100	0.60	300	10	25	200

CMX05B Multilayer Chip Common Mode Filter / General Use

Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
CMX05BYT670	67	±25%	100	0.40	400	10	25	200
CMX05BYT900	90	±25%	100	0.40	400	10	25	200
CMX05BYT121	120	±25%	100	0.40	400	10	25	200
CMX05BYT161	160	±25%	100	0.50	400	10	25	200
CMX05BYT181	180	±25%	100	0.50	400	10	25	200
CMX05BYT221	220	±25%	100	0.50	300	10	25	200

CMX06B Multilayer Chip Common Mode Filter / General Use

Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
CMX06BYT900	90	±25%	100	0.50	500	10	25	200

CMX04G Multilayer Chip Common Mode Filter / High Cut-off Frequency Use

Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage (V)	Insulation Resistance (MΩ) min.
CMX04GYT500F	50	±25%	100	1.5	100	10	100
CMX04GYT670F	67	±25%	100	1.5	100	10	100
CMX04GYT900F-1	90	±25%	100	3.0	100	10	100

CMX05G Multilayer Chip Common Mode Filter / High Cut-off Frequency Use

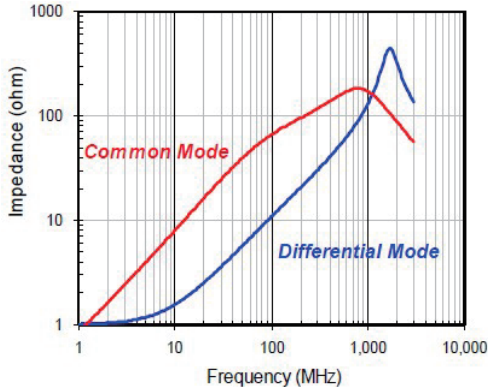
Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage (V)	Insulation Resistance (MΩ) min.
CMX05GYT500F	50	±25%	100	1.0	100	10	100
CMX05GYT900F	90	±25%	100	1.0	100	10	100
CMX05GYT121F	120	±25%	100	1.2	100	10	100

CMX04G Multilayer Chip Common Mode Filter / Ultra High Cut-off Frequency Use

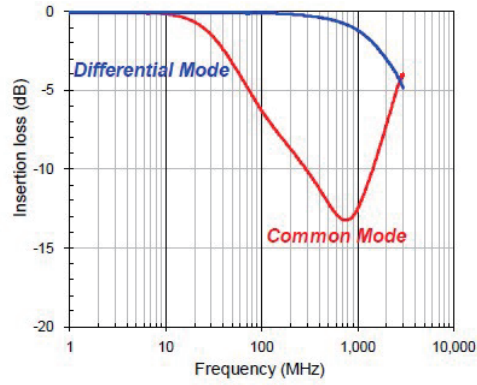
Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage (V)	Insulation Resistance (MΩ) min.
CMX04GYT150U	15	±25%	100	0.8	100	10	100

Characteristics

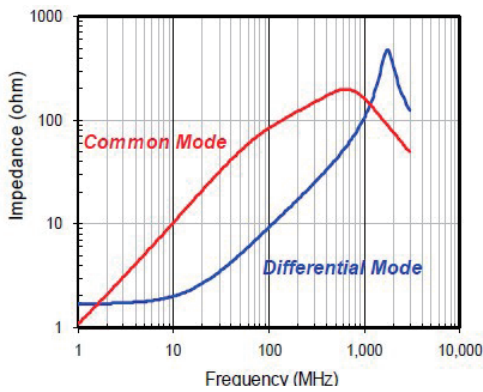
CMX04BYT670 Impedance vs. Frequency



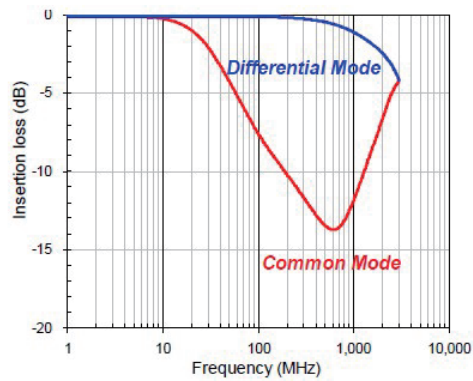
CMX04BYT670 Insertion Loss vs. Frequency



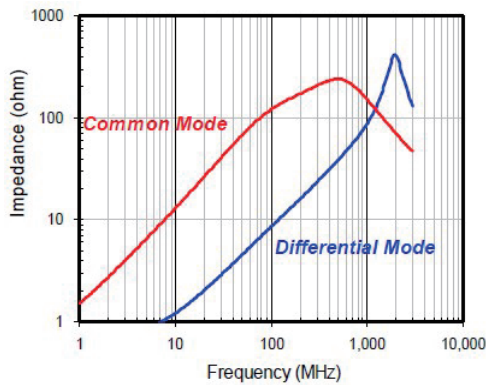
CMX04BYT900 Impedance vs. Frequency



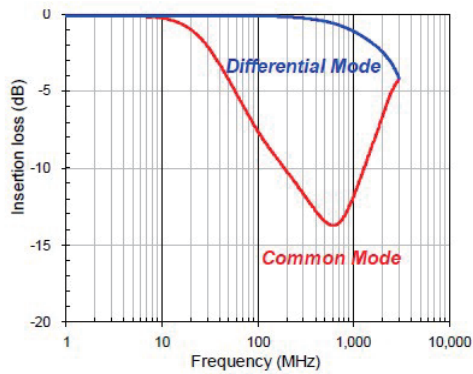
CMX04BYT900 Insertion Loss vs. Frequency



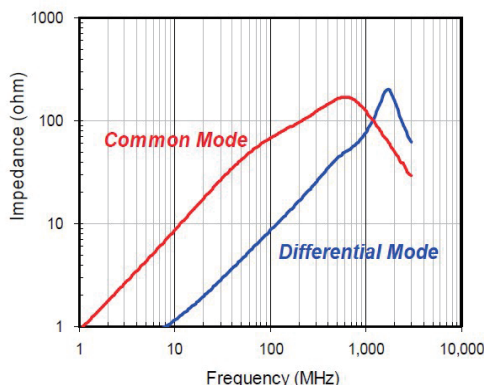
CMX04BYT121 Impedance vs. Frequency



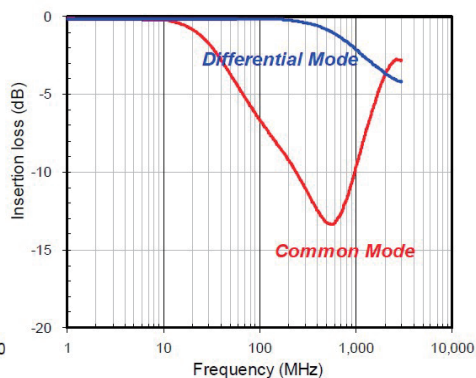
CMX04BYT121 Insertion Loss vs. Frequency



CMX05BYT670 Impedance vs. Frequency

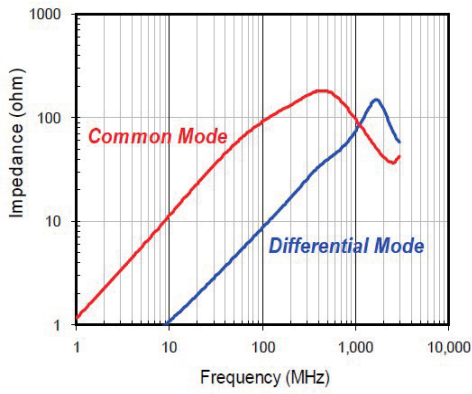


CMX05BYT670 Insertion Loss vs. Frequency

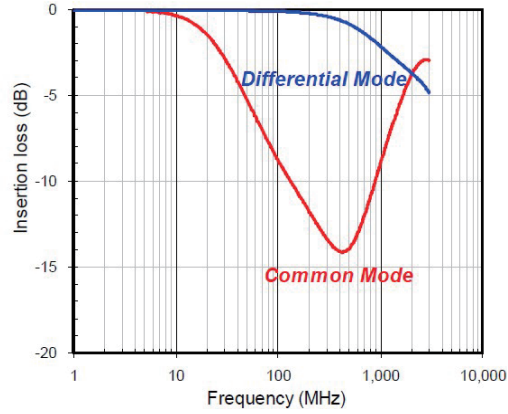


Characteristics

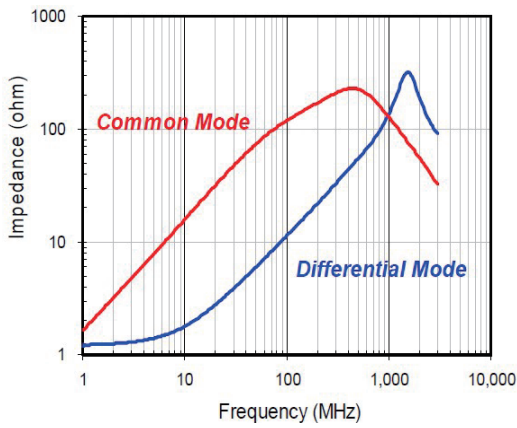
CMX05BYT900 Impedance vs. Frequency



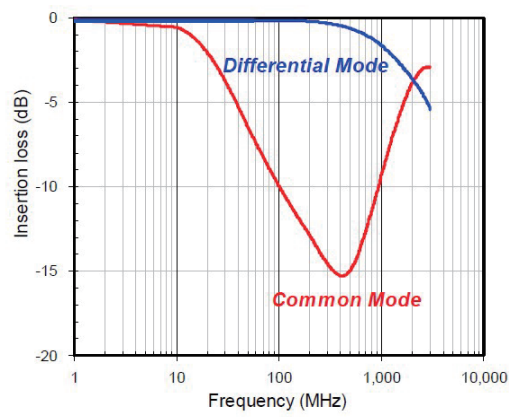
CMX05BYT900 Insertion Loss vs. Frequency



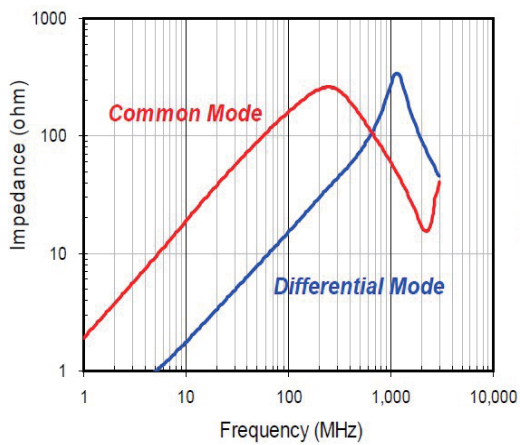
CMX05BYT121 Impedance vs. Frequency



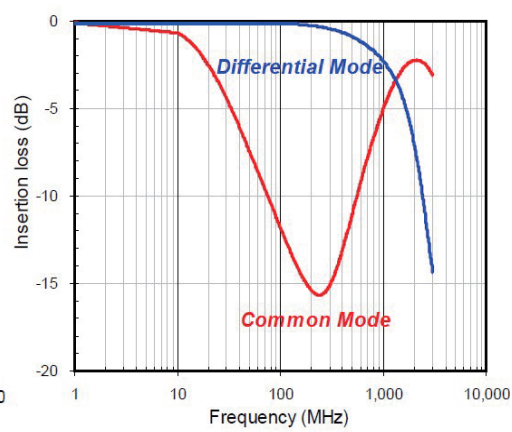
CMX05BYT121 Insertion Loss vs. Frequency



CMX05BYT161 Impedance vs. Frequency

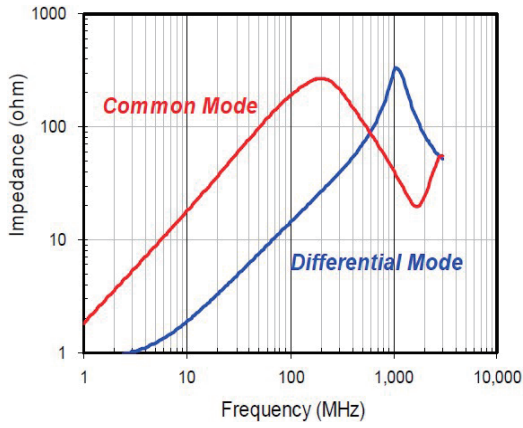


CMX05BYT161 Insertion Loss vs. Frequency

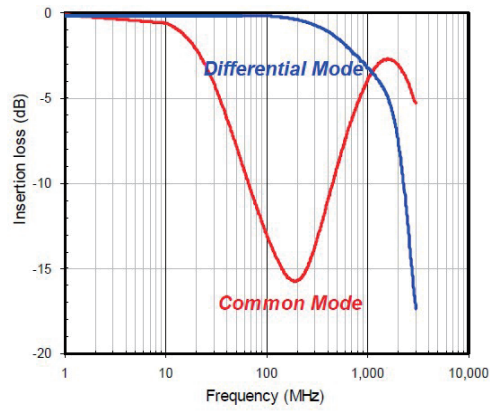


Characteristics

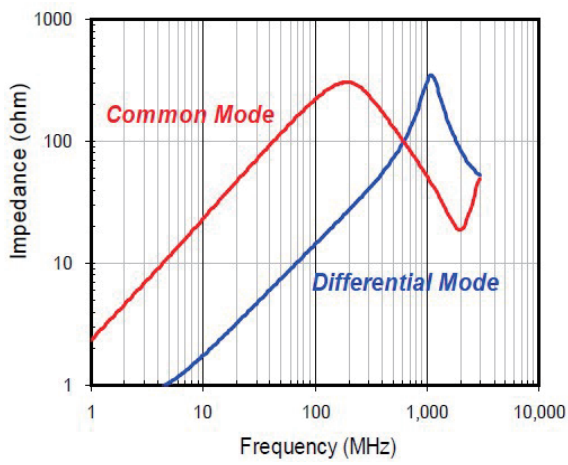
CMX05BYT181 Impedance vs. Frequency



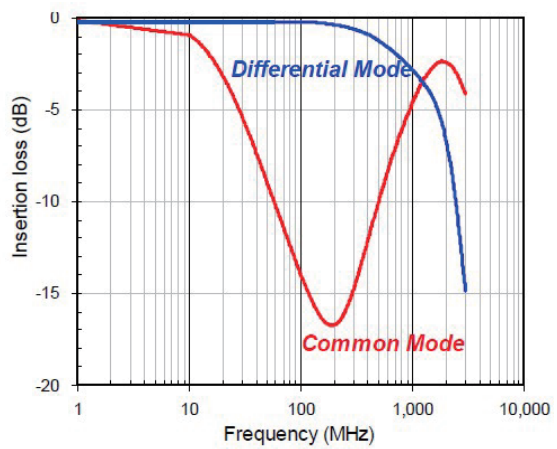
CMX05BYT181 Insertion Loss vs. Frequency



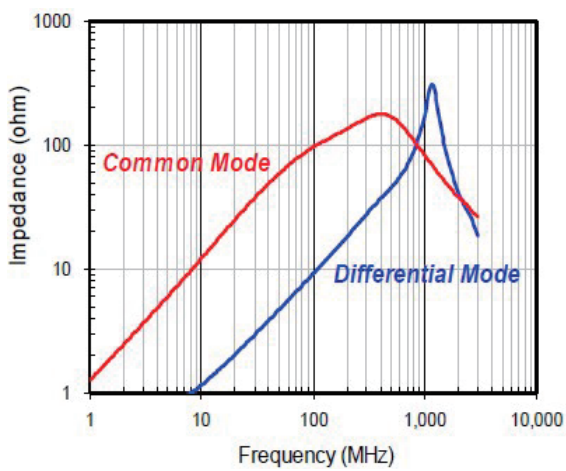
CMX05BYT221 Impedance vs. Frequency



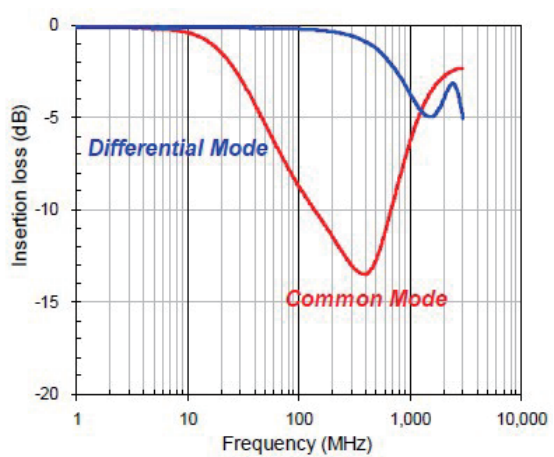
CMX05BYT221 Insertion Loss vs. Frequency



CMX06BYT900 Impedance vs. Frequency

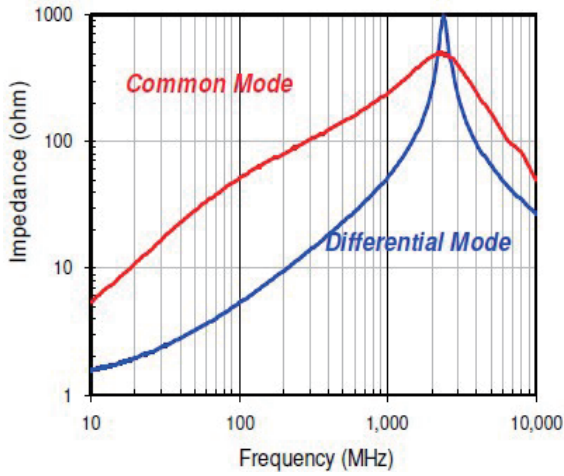


CMX06BYT900 Insertion Loss vs. Frequency

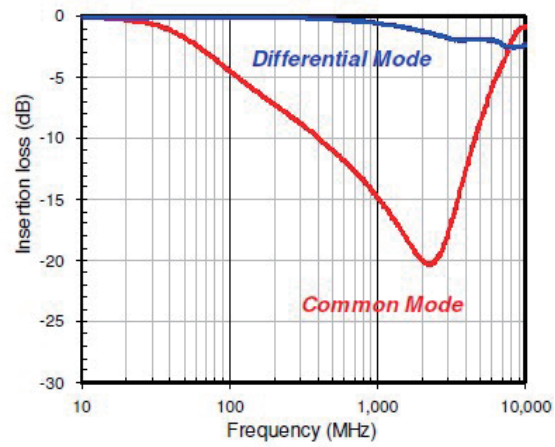


Characteristics

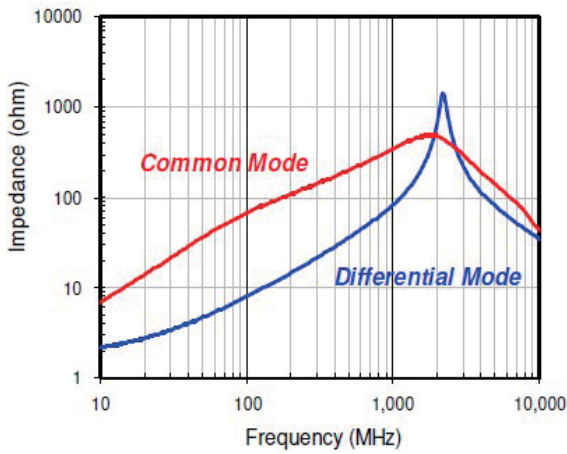
CMX04GYT500F Impedance vs. Frequency



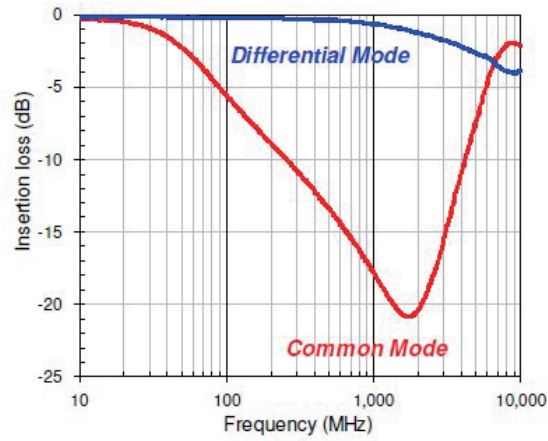
CMX04GYT500F Insertion Loss vs. Frequency



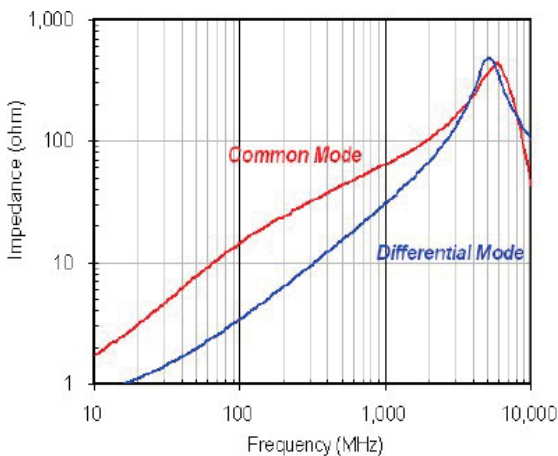
CMX04GYT670F Impedance vs. Frequency



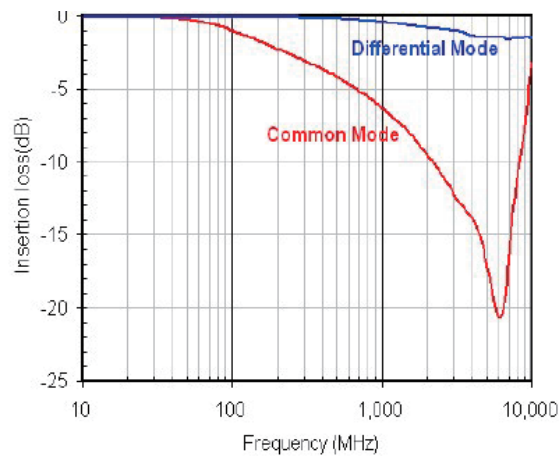
CMX04GYT670F Insertion Loss vs. Frequency



CMX04GYT150U Impedance vs. Frequency

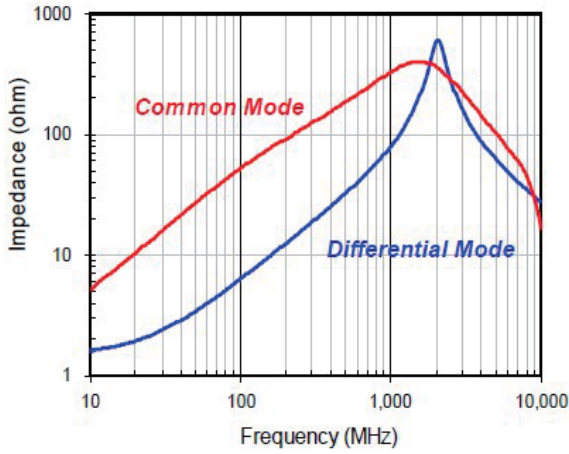


CMX04GYT150U Insertion Loss vs. Frequency

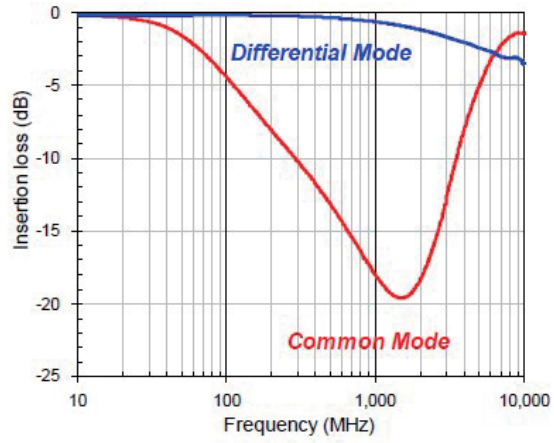


Characteristics

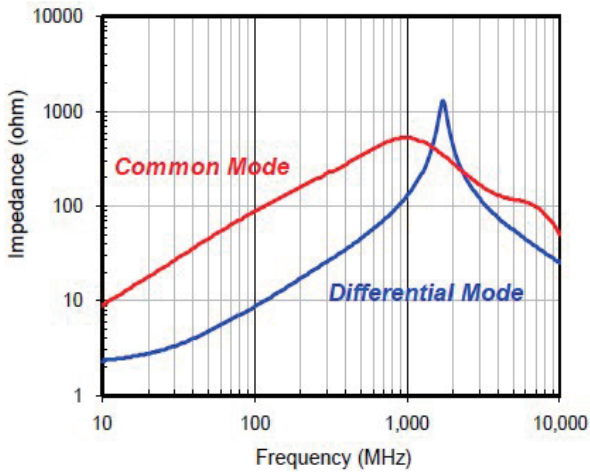
CMX05GYT500F Impedance vs. Frequency



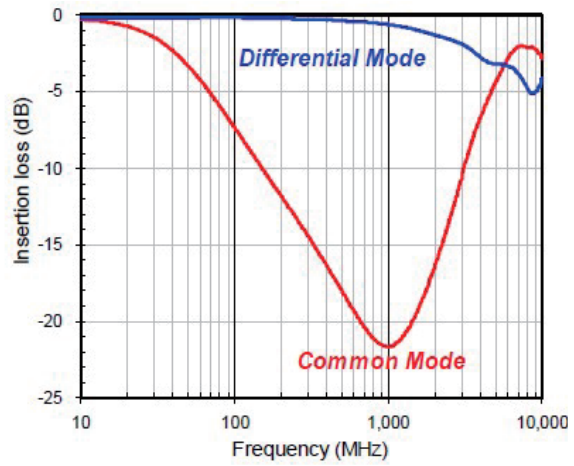
CMX05GYT500F Insertion Loss vs. Frequency



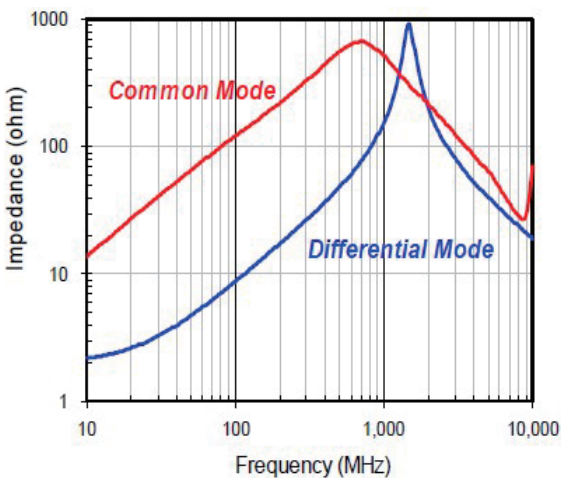
CMX05GYT900F Impedance vs. Frequency



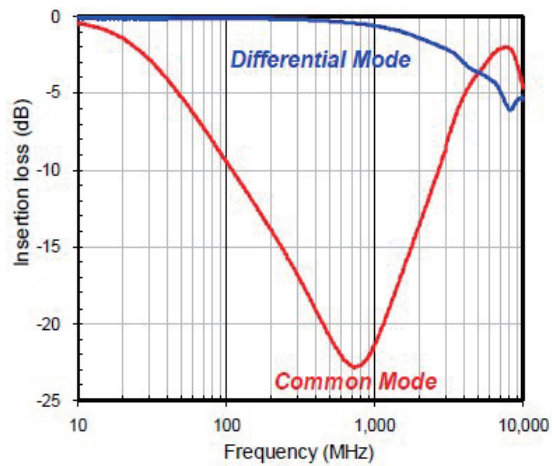
CMX05GYT900F Insertion Loss vs. Frequency



CMX05GYT121F Impedance vs. Frequency



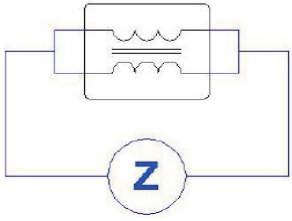
CMX05GYT121F Insertion Loss vs. Frequency



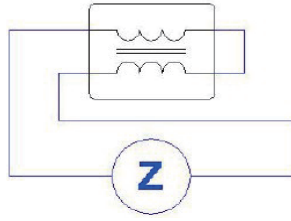
Measuring Circuits

CMX04B

(A): Common mode

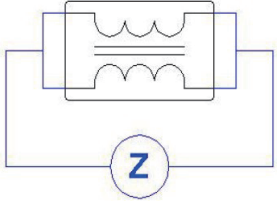


(B): Differential mode

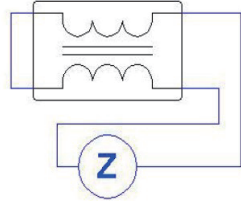


CMX05B / CMX05G

(A): Common mode

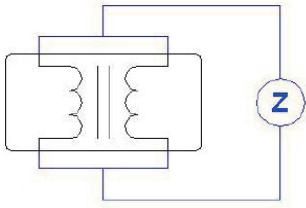


(B): Differential mode

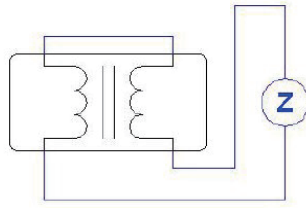


CMX06B

(A): Common mode

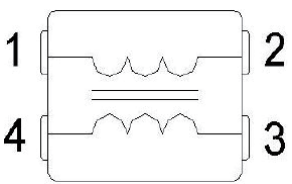


(B): Differential mode

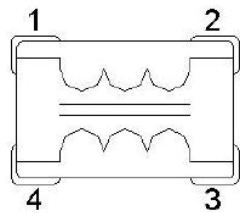


Circuits Configuration

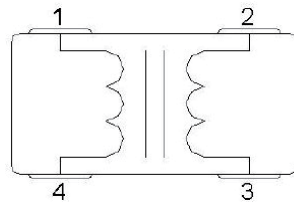
CMX04B / CMX04G



CMX05B / CMX05G

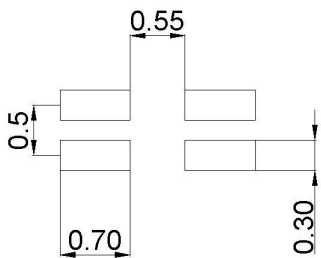


CMX06B

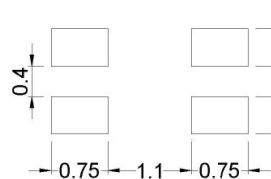


Recommend Land Pattern unit: mm

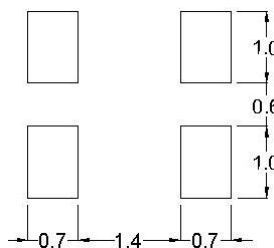
CMX04B



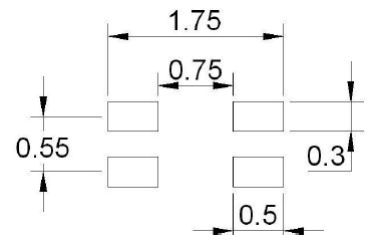
CMX05B / CMX05G



CMX06B



CMX04G



■ Environmental Characteristics

Items	Requirement	Test Conditions
Impedance	Refer to standard electrical characteristic spec.	Agilent E4991A RF Impedance / Material Analyzer
DCR		HP4338 Milliohm meter
Temperature Cycle	No mechanical damage Impedance value should be within±20% of the initial value	Temperature: -40~85°C Cycle: 1000cycles Dwell time: 30min Measurement: at ambient temperature 24hrs after test completion
Operational Life		Temperature: 85±5°C Time: 1000hrs Apply current: full rated current Measurement: at ambient temperature 24hrs after test completion
Biased Humidity		Temperature: 40±5°C Humidity: 90~95% RH Time: 1000hrs Apply current: full rated current Measurement: at ambient temperature 24hrs after test completion
Resistance to Solder Heat		More than 95% of terminal electrode Should be covered with new solder No mechanical damage Impedance value should be within±20% of the initial value
Steam Aging Test	More than 95% of terminal electrode Should be covered with new solder	Temperature: 93±2°C Test time: 8hrs (04B/05B/06B), 4hrs(04G/05G) Solder temperature: 235±5°C Flux: rosin Dip time: 5±1 sec

■ Operating temperature range: -40~85°C

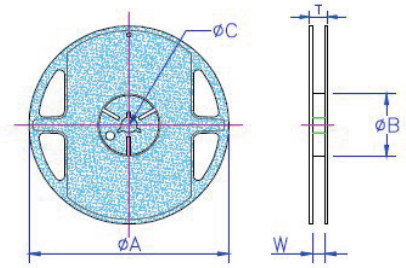
■ Storage temperature: <40°C; Humidity70%RH

■ Packaging

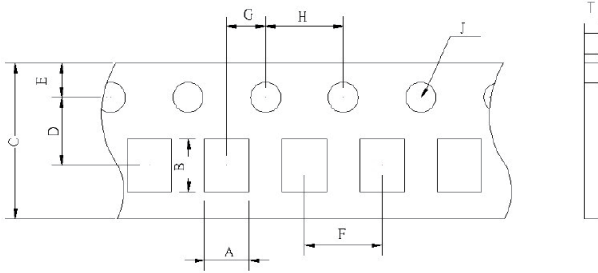
Packaging Quantity & Reel Specifications

Unit: mm

Type	ØA	ØB	ØC	W	T	Quantity (EA)
CMX04	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	4000
CMX05	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	3000
CMX06	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	3000



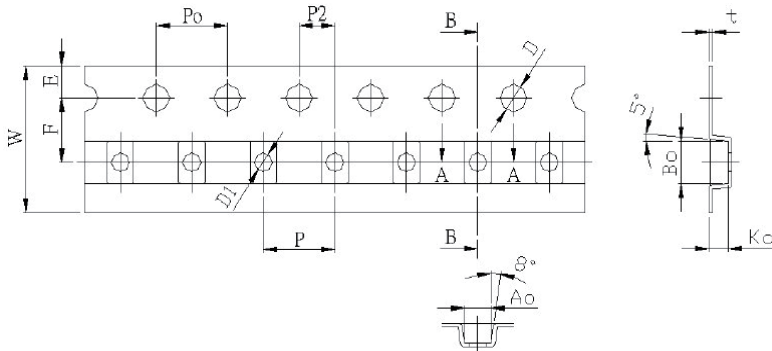
Paper Tape Specifications



Unit: mm

Type	A	B	C	D	E	F	G	H	J	T
CMX04	1.20±0.05	1.45±0.05	8.0±0.10	3.5±0.05	1.75±0.05	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	0.75±0.03

Emboss Plastic Tape Specifications

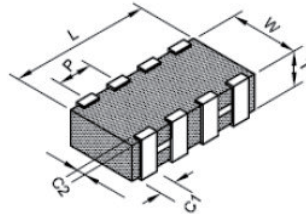
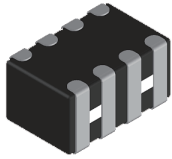


Unit: mm

Type	A0	B0	W	E	F	P	P0	P2	D	D1	K0	t
CMX05	1.40±0.10	2.30±0.10	8.0±0.10	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.5+0.10/-0	1.00±0.10	1.13±0.10	0.22±0.05
CMX06	1.80±0.10	3.40±0.10	8.0±0.10	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	1.00±0.05	1.25±0.10	0.22±0.05

Multilayer Array Chip Common Mode Filter – CMA Series

■ Dimensions



Unit: mm

■ Features

- Powerful components with composite co-fired material to solve EMI problem for high speed differential signal transmission line as USB, and LVDS, without distortion to high speed signal transmission.

Type	Sizes (Inch)	L	W	T	P	C1	C2
CMA06B	1206	3.20±0.20	1.60±0.20	1.00±0.10	0.80±0.10	0.45±0.15	0.30±0.20

■ Applications

- Differential signal lines such as mobile phones/tablets/desktops/laptops & motherboards/set-top boxes/routers USB2.0/MIPI/HDMI/Ethernet.

■ Part Numbering

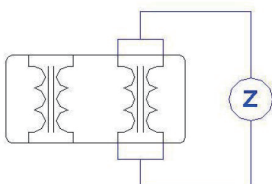
CMA	06B	Y	T	900
Product Type	Dimensions LxW	Impedance Tolerance	Packaging Code	Impedance
	06B: 1206	Y: ±25%	T: Taping Reel	900: 90Ω 121: 120Ω

■ Standard Electrical Specifications

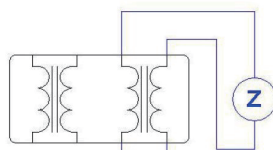
Part No.	Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
CMA06BYT900	90	±25%	100	0.40	400	10	25	200
CMA06BYT121	120	±25%	100	0.40	300	10	25	200
CBM06BYT181	180	±25%	100	0.50	300	10	25	200

■ Measuring Circuits

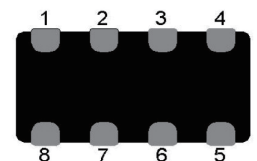
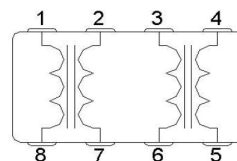
Common Mode



Differential Mode

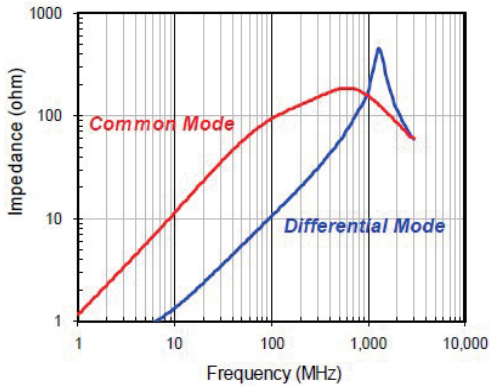


■ Circuit Configuration

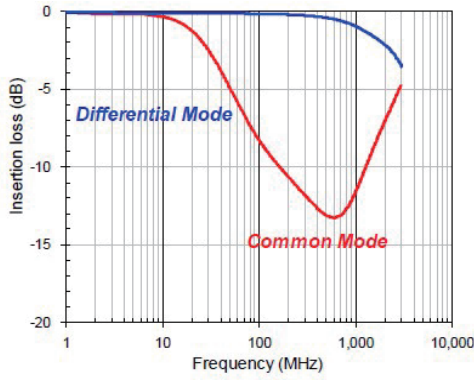


Characteristics

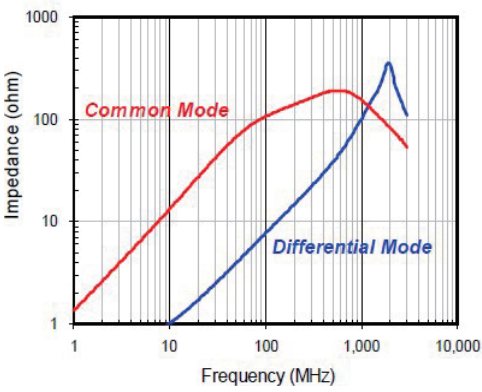
CMA06BYT900 Impedance vs. Frequency



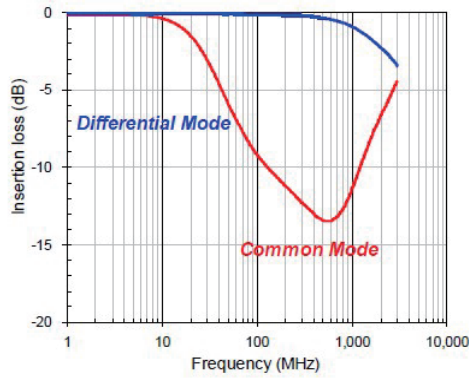
CMA06BYT900 Insertion Loss vs. Frequency



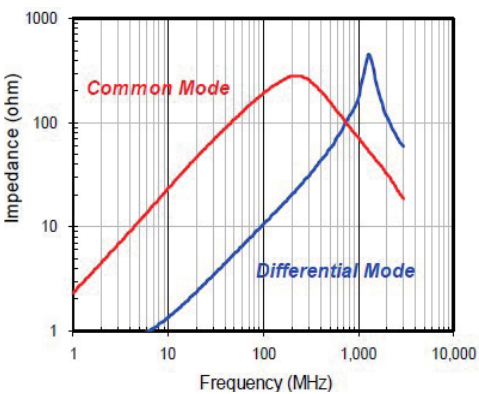
CMA06BYT121 Impedance vs. Frequency



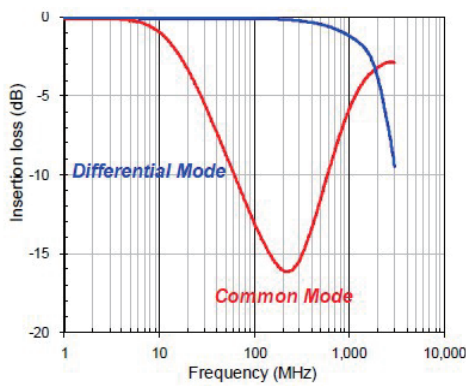
CMA06BYT121 Insertion Loss vs. Frequency



CMA06BYT181 Impedance vs. Frequency



CMA06BYT181 Insertion Loss vs. Frequency



Environmental Characteristics

Electrical Performance Test

Items	Requirement	Test Conditions
Impedance	Refer to standard electrical characteristic spec.	Agilent E4991A RF Impedance / Material Analyzer
DCR		HP4338 Milliohmimeter

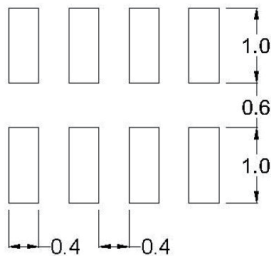
Mechanical Performance Test

Items	Requirement	Test Conditions
Temperature Cycle	No mechanical damage Impedance should be within $\pm 20\%$ of the initial value	Temperature: $-40 \sim +85^{\circ}\text{C}$ Cycle : 100cycles Dwell time: 30minutes Measurement : at ambient temperature 24 hrs after test completion
Operational Life		Temperature: $85^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Test time: 1000hrs Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion
Biased Humidity		Temperature: $40 \pm 2^{\circ}\text{C}$ Humidity : 90~95% RH Test time: 1000hrs Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion
Resistance to Solder Heat	Impedance should be within $\pm 20\%$ of the initial value No mechanical damage More than 95 % of terminal electrode should be covered with new solder	Solder temperature: $260 \pm 5^{\circ}\text{C}$ Flux: Rosin DIP time: 10 ± 1 sec
Steam Aging Test	More than 95 % of terminal electrode should be covered with new solder	Temperature : $93 \pm 2^{\circ}\text{C}$ Test time : 4 hrs Solder temperature : $235 \pm 5^{\circ}\text{C}$ Flux : Rosin DIP time : 5 ± 1 sec

■ **Operating Temperature: $-40 \sim +85^{\circ}\text{C}$**

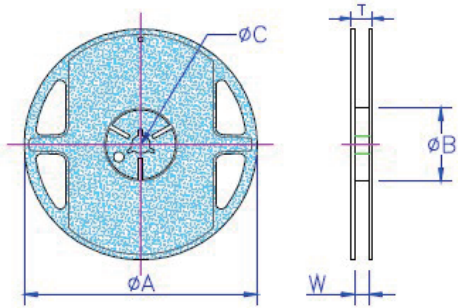
■ **Storage Temperature: $<40^{\circ}\text{C}$; Humidity 70%RH**

Recommend Land Pattern unit: mm



■ Packaging

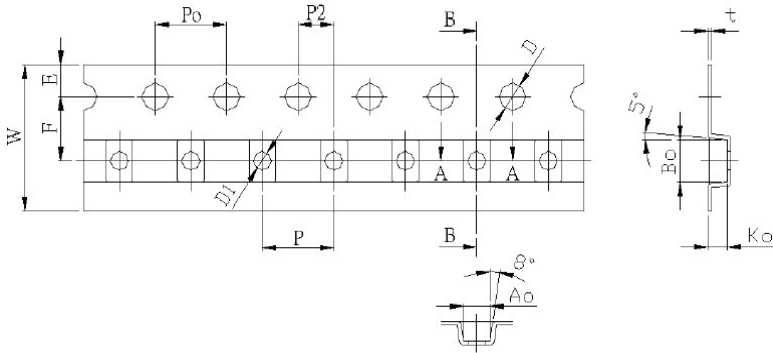
Packaging Quantity & Reel Specifications



Unit: mm

Type	ϕA	ϕB	ϕC	W	T	Quantity (EA)
CMA06B	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	3000

Emboss Plastic Tape Specifications

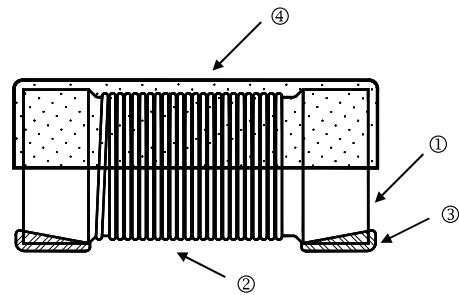


Unit: mm

Type	A0	B0	W	E	F	P	P0	P2	D	D1	K0	t
CMA06B	1.80±0.10	3.40±0.10	8.0±0.10	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	1.00±0.05	1.25±0.10	0.22±0.05

Wire Wound Chip Inductor – WL Series

Construction

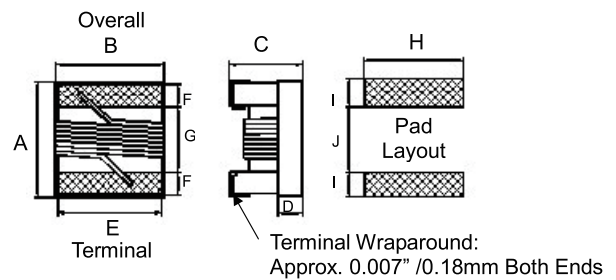


① Ceramic Core	③ Electrode
② Magnet Wire	④ UV Glue

Features

- Ceramic base provide high SRF
- Ultra-compact inductors provide high Q factors
- Low profile, high current are available
- Miniature SMD chip inductor for fully automated assembly
- Outstanding endurance from Pull-up force, mechanical shock and pressure
- Tighter tolerance down to $\pm 2\%$
- Smaller size of 0402
- AEC-Q200 Compliance

Dimensions



Applications

- Smart Phone, Remote Control, Security System
- Wireless Mouse / Keyboard / Earphone
- VCO, RF Module & Other Wireless Products
- Base Station, Repeater
- GPS Receiver, WiFi, Bluetooth, Zigbee
- Antenna Matching and Filter
- CATV Filter, Tuner, Set Top Box
- IT Applications as USB 3.0, IEEE 1394

Standard

Unit: mm

Type	Size (Inch)	A max.	B max.	C max.	D Ref.	E	F	G	H	I	J	Weight (g) (1000pcs)
WL02	0402	1.27	0.76	0.61	0.15	0.51	0.23	0.56	0.66	0.50	0.46	0.8
WL03	0603	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64	3.46
WL05	0805	2.29	1.73	1.52	0.51	1.27	0.44	1.02	1.78	1.02	0.76	12.13
WL08	1008	2.92	2.79	2.13	0.65	2.03	0.51	1.52	2.54	1.02	1.27	30.73

High Current / High Q

Unit: mm

Type	Size (Inch)	A max.	B max.	C max.	D Ref.	E	F	G	H	I	J
WL02	0402	1.27	0.76	0.61	0.15	0.51	0.23	0.56	0.66	0.50	0.46
WL03	0603	1.80	1.12	1.02	0.38	0.76	0.33	0.86	1.02	0.64	0.64
WL05	0805	2.29	1.73	1.52	0.51	1.27	0.44	1.02	1.78	1.02	0.76
WL08	1008	2.92	2.79	2.03	0.65	2.03	0.51	1.52	2.54	1.02	1.27

Part Numbering

WL	02	J	T		1N6
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Design Code	Inductance
	02: 0402 03: 0603 05: 0805 08: 1008	C: $\pm 0.2\text{nH}$ D: $\pm 0.5\text{nH}$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$	T: Taping Reel W: 13" Taping Reel	: Standard Inductor H: High Current and High Q S: HP4287 Q: High Q & Low DCR	1N6: 1.6nH 82N: 82nH R27: 270nH 1R0: 1000nH 103: 10000nH

Standard Electrical Specifications

WL02 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	900MHz		1.7GHz	
							L	Q	L	Q
1.0	$\pm 10\%$	250	16	12.70	0.045	1360	1.02	77	1.02	69
1.9	$\pm 0.2, 0.5nH, \pm 5, \pm 10\%$	250	16	11.30	0.070	1040	1.72	68	1.74	82
2.0	$\pm 10\%$	250	16	11.10	0.070	1040	1.93	54	1.93	75
2.2	$\pm 5, \pm 10\%$	250	19	10.80	0.070	960	2.19	59	2.23	100
2.4	$\pm 5, \pm 10\%$	250	15	10.50	0.070	790	2.24	51	2.27	68
2.7	$\pm 5, \pm 10\%$	250	16	10.40	0.120	640	2.23	42	2.25	61
3.3	$\pm 5, \pm 10\%$	250	19	7.00	0.066	840	3.10	65	3.12	87
3.6	$\pm 2, \pm 5, \pm 10\%$	250	19	6.80	0.066	840	3.56	45	3.62	71
3.9	$\pm 5, \pm 10\%$	250	19	5.80	0.066	840	3.89	50	4.00	75
4.3	$\pm 5, \pm 10\%$	250	18	6.00	0.091	700	4.19	47	4.30	71
4.7	$\pm 5, \pm 10\%$	250	18	4.70	0.130	640	4.55	48	4.68	68
5.1	$\pm 2, \pm 5, \pm 10\%$	250	20	4.80	0.083	800	5.15	56	5.25	82
5.6	$\pm 2, \pm 5, \pm 10\%$	250	20	4.80	0.083	760	5.16	54	5.28	81
6.2	$\pm 5, \pm 10\%$	250	20	4.80	0.083	760	6.16	52	6.37	76
6.8	$\pm 2, \pm 5, \pm 10\%$	250	20	4.80	0.083	680	6.56	63	6.93	78
7.5	$\pm 2, \pm 5, \pm 10\%$	250	22	4.80	0.104	680	7.91	60	8.22	88
8.2	$\pm 2, \pm 5, \pm 10\%$	250	22	4.40	0.104	680	8.50	57	8.85	84
8.7	$\pm 5, \pm 10\%$	250	18	4.10	0.200	480	8.78	54	9.21	73
9.0	$\pm 5, \pm 10\%$	250	22	4.16	0.104	680	9.07	62	9.53	78
9.5	$\pm 5, \pm 10\%$	250	18	4.00	0.200	480	9.42	54	9.98	69
10	$\pm 2, \pm 5, \pm 10\%$	250	21	3.90	0.195	480	9.80	50	10.10	67
11	$\pm 2, \pm 5, \pm 10\%$	250	24	3.68	0.120	640	10.70	52	11.20	78
12	$\pm 2, \pm 5, \pm 10\%$	250	24	3.60	0.120	640	11.90	53	12.70	71
13	$\pm 2, \pm 5, \pm 10\%$	250	24	3.45	0.210	440	13.40	51	14.60	57
15	$\pm 2, \pm 5, \pm 10\%$	250	24	3.28	0.172	560	14.60	55	15.50	77
16	$\pm 2, \pm 5, \pm 10\%$	250	24	3.10	0.220	560	16.60	46	18.80	47
18	$\pm 2, \pm 5, \pm 10\%$	250	25	3.10	0.230	420	18.30	57	20.30	62
19	$\pm 2, \pm 5, \pm 10\%$	250	24	3.04	0.202	480	19.10	50	21.10	67
20	$\pm 2, \pm 5, \pm 10\%$	250	25	3.00	0.250	420	20.70	52	23.70	53
22	$\pm 2, \pm 5, \pm 10\%$	250	25	2.80	0.300	400	23.20	53	26.80	53
23	$\pm 2, \pm 5, \pm 10\%$	250	24	2.72	0.300	400	23.80	49	26.90	64
24	$\pm 2, \pm 5, \pm 10\%$	250	25	2.70	0.300	400	25.10	51	29.50	50
27	$\pm 2, \pm 5, \pm 10\%$	250	24	2.48	0.300	400	28.70	49	33.50	63
30	$\pm 2, \pm 5, \pm 10\%$	250	25	2.35	0.350	400	31.10	46	38.50	39
33	$\pm 2, \pm 5, \pm 10\%$	250	24	2.35	0.350	400	34.90	31	41.70	32
36	$\pm 2, \pm 5, \pm 10\%$	250	24	2.32	0.440	320	39.50	44	48.40	53
39	$\pm 2, \pm 5, \pm 10\%$	250	25	2.10	0.550	200	41.70	47	50.20	45
40	$\pm 2, \pm 5, \pm 10\%$	250	24	2.24	0.500	320	39.00	44	47.40	33
43	$\pm 2, \pm 5, \pm 10\%$	250	25	2.03	0.810	100	45.80	46	61.60	34
47	$\pm 2, \pm 5, \pm 10\%$	250	25	2.10	0.830	150	50.00	38	55.80	37
51	$\pm 2, \pm 5, \pm 10\%$	250	25	1.75	0.820	100	50.40	47	59.40	37
56	$\pm 2, \pm 5, \pm 10\%$	250	25	1.76	0.970	100	57.40	49	72.40	40
68	$\pm 2, \pm 5, \pm 10\%$	250	22	1.62	1.120	100	69.60	45	83.40	38
82	$\pm 2, \pm 5, \pm 10\%$	250	22	1.26	1.550	50	-	-	-	-
100	$\pm 2, \pm 5, \pm 10\%$	250	22	1.16	2.000	30	-	-	-	-
120	$\pm 2, \pm 5, \pm 10\%$	250	20	>1.80	2.660	50	-	-	-	-

WL03 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	900MHz		1.7GHz	
							L	Q	L	Q
1.6	±5, ±10%	250	24	12.5	0.030	700	1.53	35	1.58	55
1.8	±2, ±5, ±10%	250	16	12.5	0.045	700	1.63	35	1.66	50
2.2	±5, ±10%	250	15	6.00	0.100	700	2.18	41	2.20	64
2.3	±5, ±10%	250	16	>4.00	0.140	700	2.32	32	2.35	40
3.3	±2, ±5, ±10%	250	22	>6.00	0.080	700	3.35	47	3.40	65
3.6	±2, ±5, ±10%	250	22	5.80	0.063	700	3.53	49	3.58	65
3.9	±2, ±5, ±10%	250	22	>6.00	0.080	700	3.95	49	3.96	67
4.3	±2, ±5, ±10%	250	22	5.80	0.063	700	4.32	49	4.43	67
4.5	±2, ±5, ±10%	250	20	5.80	0.120	700	4.74	55	4.87	92
4.7	±2, ±5, ±10%	250	25	5.80	0.120	700	4.65	53	4.80	67
5.1	±2, ±5, ±10%	250	20	5.80	0.160	700	5.13	47	5.36	56
5.6	±2, ±5, ±10%	250	20	5.80	0.170	700	5.53	56	5.86	77
6.2	±2, ±5, ±10%	250	25	5.80	0.110	700	6.28	60	6.40	85
6.3	±2, ±5, ±10%	250	25	5.80	0.110	700	6.67	41	6.86	61
6.8	±2, ±5, ±10%	250	27	5.80	0.110	700	6.75	60	7.10	81
7.5	±2, ±5, ±10%	250	28	4.80	0.106	700	7.70	60	7.82	65
8.2	±2, ±5, ±10%	250	27	4.80	0.110	700	8.25	64	8.40	81
8.7	±2, ±5, ±10%	250	28	4.80	0.109	700	8.86	62	9.32	58
9.1	±2, ±5, ±10%	250	35	4.80	0.130	700	9.20	70	9.70	80
9.5	±2, ±5, ±10%	250	28	5.40	0.135	700	9.70	59	9.92	61
10	±2, ±5, ±10%	250	31	4.80	0.130	700	10.0	66	10.6	83
11	±2, ±5, ±10%	250	31	4.00	0.086	700	11.3	53	12.1	56
12	±2, ±5, ±10%	250	35	4.00	0.130	700	12.3	72	13.5	83
15	±2, ±5, ±10%	250	35	4.00	0.170	700	15.4	64	16.8	89
16	±2, ±5, ±10%	250	35	3.30	0.110	700	16.5	55	18.0	52
17	±2, ±5, ±10%	250	35	3.20	0.170	700	17.6	56	19.4	44
18	±2, ±5, ±10%	250	35	3.10	0.170	700	18.7	70	21.4	69
20	±2, ±5, ±10%	250	40	3.00	0.190	700	20.7	80	23.5	30
22	±2, ±5, ±10%	250	38	3.00	0.190	700	22.8	73	26.1	71
23	±2, ±5, ±10%	250	38	2.85	0.190	700	24.1	71	28.0	71
24	±2, ±5, ±10%	250	38	2.80	0.130	700	25.7	45	30.9	40
27	±2, ±5, ±10%	250	40	2.80	0.220	600	29.2	74	34.6	65
30	±2, ±5, ±10%	250	40	2.80	0.150	600	31.4	47	39.8	28
33	±2, ±5, ±10%	250	40	2.30	0.220	600	36.0	67	49.5	42
36	±2, ±5, ±10%	250	37	2.30	0.250	600	39.1	47	48.9	24
39	±2, ±5, ±10%	250	40	2.20	0.250	600	42.7	60	60.2	40
43	±2, ±5, ±10%	200	38	2.00	0.280	600	46.9	44	60.3	21
47	±2, ±5, ±10%	200	38	2.00	0.280	600	52.2	62	77.2	35
51	±2, ±5, ±10%	200	38	1.90	0.280	600	55.5	69	82.2	34
56	±2, ±5, ±10%	200	38	1.90	0.310	600	62.5	56	97.0	26
62	±2, ±5, ±10%	200	37	1.80	0.340	600	68.0	40	110	10
68	±2, ±5, ±10%	200	37	1.70	0.340	600	80.5	54	168	21
72	±2, ±5, ±10%	150	34	1.70	0.490	600	82.0	53	135	20
82	±2, ±5, ±10%	150	34	1.70	0.540	400	96.2	54	177	21
91	±2, ±5, ±10%	150	30	1.70	0.500	400	110.0	50	416.4	6
100	±2, ±5, ±10%	150	34	1.40	0.580	400	124.0	49	319.5	13
110	±2, ±5, ±10%	150	32	1.35	0.610	300	138.0	43	342.7	15
120	±2, ±5, ±10%	150	32	1.30	0.650	300	166.0	39	529.3	8
130	±2, ±5, ±10%	150	30	1.40	0.720	300	185.0	60	-	-
140	±2, ±5, ±10%	100	28	1.30	0.870	280	190.0	80	-	-
150	±2, ±5, ±10%	100	28	1.30	0.950	280	230.0	25	-	-
160	±2, ±5, ±10%	100	25	1.30	1.400	280	215.0	20	-	-
180	±2, ±5, ±10%	100	25	1.25	1.400	250	305.0	22	-	-
200	±2, ±5, ±10%	100	25	-	1.400	250	-	-	-	-
220	±2, ±5, ±10%	100	25	1.20	1.600	250	377.0	21	-	-
240	±2, ±5, ±10%	100	25	1.20	2.000	250	377.0	21	-	-
250	±2, ±5, ±10%	100	25	1.20	2.000	250	377.0	21	-	-
260	±2, ±5, ±10%	100	25	1.00	2.000	200	469.0	21	-	-
270	±2, ±5, ±10%	100	25	0.90	2.100	200	523.0	19	-	-
280	±2, ±5, ±10%	100	25	1.00	2.400	100	524.0	18	-	-
300	±2, ±5, ±10%	100	25	0.75	2.500	150	539.7	21	-	-
330	±2, ±5, ±10%	100	25	0.90	3.800	100	680.4	20	-	-
390	±2, ±5, ±10%	100	25	0.90	4.350	100	734.5	29	-	-
470	±2, ±5, ±10%	100	23	0.60	3.600	80	-	-	-	-

WL05 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
2.7	$\pm 5, \pm 10\%$	250	80 @ 1500MHz	7.900	0.06	800
2.8	$\pm 2, \pm 5, \pm 10\%$	250	80 @ 1500MHz	7.900	0.06	800
3.0	$\pm 5, \pm 10\%$	250	65 @ 1500MHz	7.900	0.06	800
3.3	$\pm 5, \pm 10\%$	250	50 @ 1500MHz	6.000	0.08	600
3.9	$\pm 5, \pm 10\%$	250	50 @ 1500MHz	5.500	0.08	600
4.7	$\pm 5, \pm 10\%$	250	65 @ 1000MHz	5.500	0.08	600
5.6	$\pm 5, \pm 10\%$	250	65 @ 1000MHz	5.500	0.08	600
6.2	$\pm 5, \pm 10\%$	250	50 @ 1000MHz	5.500	0.11	600
6.8	$\pm 5, \pm 10\%$	250	50 @ 1000MHz	5.500	0.11	600
7.5	$\pm 5, \pm 10\%$	250	50 @ 1000MHz	4.500	0.14	600
8.2	$\pm 5, \pm 10\%$	250	50 @ 1000MHz	4.700	0.12	600
8.7	$\pm 5, \pm 10\%$	250	50 @ 1000MHz	4.000	0.21	400
10	$\pm 2, \pm 5, \pm 10\%$	250	60 @ 500MHz	4.200	0.10	600
12	$\pm 2, \pm 5, \pm 10\%$	250	50 @ 500MHz	4.000	0.15	600
15	$\pm 2, \pm 5, \pm 10\%$	250	50 @ 500MHz	3.400	0.17	600
18	$\pm 2, \pm 5, \pm 10\%$	250	50 @ 500MHz	3.300	0.20	600
20	$\pm 2, \pm 5, \pm 10\%$	250	55 @ 500MHz	2.600	0.22	500
22	$\pm 2, \pm 5, \pm 10\%$	250	55 @ 500MHz	2.600	0.22	500
24	$\pm 2, \pm 5, \pm 10\%$	250	50 @ 500MHz	2.000	0.22	500
27	$\pm 2, \pm 5, \pm 10\%$	250	55 @ 500MHz	2.500	0.25	500
30	$\pm 2, \pm 5, \pm 10\%$	250	60 @ 500MHz	2.050	0.25	500
33	$\pm 2, \pm 5, \pm 10\%$	250	60 @ 500MHz	2.050	0.27	500
36	$\pm 2, \pm 5, \pm 10\%$	250	55 @ 500MHz	1.700	0.27	500
39	$\pm 2, \pm 5, \pm 10\%$	250	60 @ 500MHz	2.000	0.29	500
43	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.650	0.34	500
47	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.650	0.31	500
51	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.650	0.34	500
56	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.550	0.34	500
62	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.500	0.36	500
68	$\pm 2, \pm 5, \pm 10\%$	200	60 @ 500MHz	1.450	0.38	500
72	$\pm 2, \pm 5, \pm 10\%$	150	65 @ 500MHz	1.400	0.40	500
75	$\pm 2, \pm 5, \pm 10\%$	150	65 @ 500MHz	1.350	0.41	500
82	$\pm 2, \pm 5, \pm 10\%$	150	65 @ 500MHz	1.300	0.42	400
91	$\pm 2, \pm 5, \pm 10\%$	150	65 @ 500MHz	1.200	0.48	400
100	$\pm 2, \pm 5, \pm 10\%$	150	65 @ 500MHz	1.200	0.46	400
110	$\pm 2, \pm 5, \pm 10\%$	150	50 @ 250MHz	1.000	0.48	400
120	$\pm 2, \pm 5, \pm 10\%$	150	50 @ 250MHz	1.100	0.51	400
130	$\pm 2, \pm 5, \pm 10\%$	150	50 @ 250MHz	0.980	0.54	400
150	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.920	0.56	400
160	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.870	0.60	400
180	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.870	0.64	400
200	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.860	0.66	400
220	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.850	0.70	400
240	$\pm 2, \pm 5, \pm 10\%$	100	44 @ 250MHz	0.690	1.00	350
250	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 250MHz	0.680	1.00	350
270	$\pm 2, \pm 5, \pm 10\%$	100	48 @ 250MHz	0.650	1.00	350
300	$\pm 2, \pm 5, \pm 10\%$	100	48 @ 250MHz	0.620	1.20	330
330	$\pm 2, \pm 5, \pm 10\%$	100	48 @ 250MHz	0.600	1.40	310
360	$\pm 2, \pm 5, \pm 10\%$	100	48 @ 250MHz	0.580	1.45	300
390	$\pm 2, \pm 5, \pm 10\%$	100	48 @ 250MHz	0.560	1.50	290
430	$\pm 2, \pm 5, \pm 10\%$	50	33 @ 100MHz	0.430	1.70	230
470	$\pm 2, \pm 5, \pm 10\%$	50	33 @ 100MHz	0.375	1.70	250
510	$\pm 2, \pm 5, \pm 10\%$	50	23 @ 50MHz	0.365	1.90	240
560	$\pm 2, \pm 5, \pm 10\%$	25	23 @ 50MHz	0.340	1.90	230
600	$\pm 2, \pm 5, \pm 10\%$	25	23 @ 50MHz	0.260	1.60	450

WL05 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
620	±2, ±5, ±10%	25	23 @ 50MHz	0.220	2.20	210
680	±2, ±5, ±10%	25	23 @ 50MHz	0.200	2.20	190
750	±2, ±5, ±10%	25	23 @ 50MHz	0.200	2.30	180
820	±2, ±5, ±10%	25	23 @ 50MHz	0.200	2.35	180
1000	±2, ±5, ±10%	25	20 @ 50MHz	0.100	2.50	170
1200	±2, ±5, ±10%	7.9	18 @ 25MHz	0.100	2.50	170
1500	±2, ±5, ±10%	7.9	16 @ 25MHz	0.100	2.50	170
1800	±2, ±5, ±10%	7.9	16 @ 7.9MHz	0.080	2.50	170
2200	±2, ±5, ±10%	7.9	16 @ 7.9MHz	0.060	2.70	160
2700	±2, ±5, ±10%	7.9	16 @ 7.9MHz	0.050	3.10	150
3300	±2, ±5, ±10%	7.9	15 @ 7.9MHz	0.040	4.40	90
3900	±2, ±5, ±10%	7.9	15 @ 7.9MHz	0.040	4.41	90
4700	±2, ±5, ±10%	7.9	15 @ 7.9MHz	0.040	6.40	90
5600	±2, ±5, ±10%	7.9	20 @ 10MHz	0.075	7.00	100
6800	±2, ±5, ±10%	7.9	20 @ 10MHz	0.065	9.80	80

WL08 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
3.3	±5, ±10%	50	50 @ 1500MHz	4.000	0.15	1000
4.7	±5, ±10%	50	50 @ 1500MHz	4.000	0.15	1000
*5.6	±5, ±10%	50	50 @ 1500MHz	4.000	0.15	1000
*10	±2, ±5, ±10%	50	50 @ 500MHz	4.100	0.08	1000
*12	±2, ±5, ±10%	50	50 @ 500MHz	3.300	0.09	1000
*15	±2, ±5, ±10%	50	50 @ 500MHz	2.500	0.11	1000
*18	±2, ±5, ±10%	50	50 @ 350MHz	2.400	0.12	1000
*22	±2, ±5, ±10%	50	55 @ 350MHz	2.400	0.12	1000
24	±2, ±5, ±10%	50	55 @ 350MHz	1.900	0.13	1000
*27	±2, ±5, ±10%	50	55 @ 350MHz	1.600	0.13	1000
30	±2, ±5, ±10%	50	60 @ 350MHz	1.600	0.14	1000
*33	±2, ±5, ±10%	50	60 @ 350MHz	1.600	0.14	1000
36	±2, ±5, ±10%	50	60 @ 350MHz	1.600	0.15	1000
*39	±2, ±5, ±10%	50	60 @ 350MHz	1.500	0.15	1000
*47	±2, ±5, ±10%	50	65 @ 350MHz	1.500	0.16	1000
51	±2, ±5, ±10%	50	65 @ 350MHz	1.300	0.18	1000
*56	±2, ±5, ±10%	50	65 @ 350MHz	1.300	0.18	1000
*62	±2, ±5, ±10%	50	65 @ 350MHz	1.250	0.20	1000
*68	±2, ±5, ±10%	50	65 @ 350MHz	1.300	0.20	1000
75	±2, ±5, ±10%	50	60 @ 350MHz	1.100	0.21	1000
*82	±2, ±5, ±10%	50	60 @ 350MHz	1.000	0.22	1000
91	±2, ±5, ±10%	50	50 @ 350MHz	1.000	0.45	1000
*100	±2, ±5, ±10%	25	60 @ 350MHz	1.000	0.56	650
*120	±2, ±5, ±10%	25	60 @ 350MHz	0.950	0.63	650
*150	±2, ±5, ±10%	25	45 @ 100MHz	0.850	0.70	800
160	±2, ±5, ±10%	25	45 @ 100MHz	0.800	0.75	650
*180	±2, ±5, ±10%	25	45 @ 100MHz	0.750	0.77	620
*220	±2, ±5, ±10%	25	45 @ 100MHz	0.700	0.84	500
*240	±2, ±5, ±10%	25	45 @ 100MHz	0.650	0.88	500
*270	±2, ±5, ±10%	25	45 @ 100MHz	0.600	0.91	690
*300	±2, ±5, ±10%	25	45 @ 100MHz	0.585	1.00	450
*330	±2, ±5, ±10%	25	45 @ 100MHz	0.570	1.05	450
*360	±2, ±5, ±10%	25	45 @ 100MHz	0.530	1.10	470
*390	±2, ±5, ±10%	25	45 @ 100MHz	0.500	1.12	630
*430	±2, ±5, ±10%	25	45 @ 100MHz	0.480	1.15	470
*470	±2, ±5, ±10%	25	45 @ 100MHz	0.450	1.19	470

WL08 Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
*560	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.415	1.33	580
*620	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.375	1.40	300
*680	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.375	1.47	540
*750	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.360	1.54	360
*820	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.350	1.61	400
*910	$\pm 2, \pm 5, \pm 10\%$	25	35 @ 50MHz	0.320	1.68	380
*1000	$\pm 2, \pm 5, \pm 10\%$	25	35 @ 50MHz	0.290	1.75	370
*1200	$\pm 2, \pm 5, \pm 10\%$	7.9	35 @ 50MHz	0.250	2.00	310
*1500	$\pm 2, \pm 5, \pm 10\%$	7.9	28 @ 50MHz	0.200	2.30	330
*1800	$\pm 2, \pm 5, \pm 10\%$	7.9	28 @ 50MHz	0.160	2.60	300
*2200	$\pm 2, \pm 5, \pm 10\%$	7.9	28 @ 50MHz	0.160	2.80	280
*2700	$\pm 2, \pm 5, \pm 10\%$	7.9	22 @ 25MHz	0.140	3.20	290
*3300	$\pm 2, \pm 5, \pm 10\%$	7.9	22 @ 25MHz	0.110	3.40	290
*3900	$\pm 2, \pm 5, \pm 10\%$	7.9	18 @ 25MHz	0.100	3.60	260
*4700	$\pm 2, \pm 5, \pm 10\%$	7.9	18 @ 25MHz	0.090	4.00	260
5600	$\pm 2, \pm 5, \pm 10\%$	7.9	16 @ 7.96MHz	0.020	4.00	240
6800	$\pm 2, \pm 5, \pm 10\%$	7.9	15 @ 7.96MHz	0.040	4.90	200
8200	$\pm 2, \pm 5, \pm 10\%$	7.9	15 @ 7.96MHz	0.025	6.00	170
10000	$\pm 2, \pm 5, \pm 10\%$	2.52	15 @ 7.96MHz	0.020	9.00	150
12000	$\pm 2, \pm 5, \pm 10\%$	2.52	15 @ 7.96MHz	0.018	10.5	130
15000	$\pm 2, \pm 5, \pm 10\%$	2.52	15 @ 7.96MHz	0.015	11.5	120

" * " Test Methods / Instrument: Network / Spectrum Analyzer

WL08(S) Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
4.2	$\pm 5, \pm 10\%$	50	50 @ 500MHz	4.000	0.15	1000
4.7	$\pm 5, \pm 10\%$	50	50 @ 500MHz	4.000	0.15	1000
5.6	$\pm 5, \pm 10\%$	50	50 @ 500MHz	4.000	0.15	1000
8.2	$\pm 5, \pm 10\%$	50	50 @ 500MHz	4.000	0.08	1000
10	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 500MHz	4.100	0.08	1000
12	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 500MHz	3.300	0.09	1000
15	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 500MHz	2.500	0.11	1000
18	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 350MHz	2.400	0.12	1000
22	$\pm 2, \pm 5, \pm 10\%$	50	55 @ 350MHz	2.400	0.12	1000
24	$\pm 2, \pm 5, \pm 10\%$	50	55 @ 350MHz	1.900	0.13	1000
27	$\pm 2, \pm 5, \pm 10\%$	50	55 @ 350MHz	1.600	0.13	1000
30	$\pm 2, \pm 5, \pm 10\%$	50	55 @ 350MHz	1.600	0.14	1000
33	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 350MHz	1.600	0.14	1000
36	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 350MHz	1.600	0.15	1000
39	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 350MHz	1.500	0.15	1000
43	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 350MHz	1.500	0.16	1000
47	$\pm 2, \pm 5, \pm 10\%$	50	65 @ 350MHz	1.500	0.16	1000
56	$\pm 2, \pm 5, \pm 10\%$	50	65 @ 350MHz	1.300	0.18	1000
62	$\pm 2, \pm 5, \pm 10\%$	50	65 @ 350MHz	1.250	0.20	1000
68	$\pm 2, \pm 5, \pm 10\%$	50	65 @ 350MHz	1.300	0.20	1000
75	$\pm 2, \pm 5, \pm 10\%$	50	65 @ 350MHz	1.100	0.21	1000
82	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 350MHz	1.000	0.22	1000
91	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 350MHz	1.000	0.45	1000
100	$\pm 2, \pm 5, \pm 10\%$	25	60 @ 350MHz	1.000	0.56	650
120	$\pm 2, \pm 5, \pm 10\%$	25	60 @ 350MHz	0.950	0.63	650
150	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.850	0.70	800
180	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.750	0.77	620
220	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.700	0.84	500
240	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.650	0.88	500
270	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.600	0.91	690
300	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.585	1.00	450
330	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.570	1.05	450
360	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.530	1.10	470
390	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.500	1.12	630
430	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.480	1.15	470
470	$\pm 2, \pm 5, \pm 10\%$	25	45 @ 100MHz	0.450	1.19	470

WL08(S) Wire Wound Chip Inductors / Standard Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
560	±2, ±5, ±10%	25	45 @ 100MHz	0.415	1.33	580
620	±2, ±5, ±10%	25	45 @ 100MHz	0.375	1.40	300
680	±2, ±5, ±10%	25	45 @ 100MHz	0.375	1.47	540
750	±2, ±5, ±10%	25	45 @ 100MHz	0.360	1.54	360
820	±2, ±5, ±10%	25	45 @ 100MHz	0.350	1.61	400
910	±2, ±5, ±10%	25	35 @ 50MHz	0.320	1.68	380
1000	±2, ±5, ±10%	25	35 @ 50MHz	0.290	1.75	370
1200	±2, ±5, ±10%	7.9	35 @ 50MHz	0.250	2.00	310
1800	±2, ±5, ±10%	7.9	28 @ 50MHz	0.160	2.60	300
2200	±2, ±5, ±10%	7.9	28 @ 50MHz	0.160	2.80	280
2700	±2, ±5, ±10%	7.9	22 @ 25MHz	0.140	3.20	290
3300	±2, ±5, ±10%	7.9	22 @ 25MHz	0.110	3.40	290
3900	±2, ±5, ±10%	7.9	18 @ 25MHz	0.100	3.60	260
4700	±2, ±5, ±10%	7.9	18 @ 25MHz	0.090	4.00	260
5600	±2, ±5, ±10%	7.9	16 @ 7.96MHz	0.020	4.00	260
6800	±2, ±5, ±10%	7.9	15 @ 7.96MHz	0.040	4.90	200
8200	±2, ±5, ±10%	7.9	15 @ 7.96MHz	0.025	6.00	170
10000	±2, ±5, ±10%	2.52	15 @ 7.96MHz	0.020	9.00	150
12000	±2, ±5, ±10%	2.52	15 @ 7.96MHz	0.018	10.50	130
15000	±2, ±5, ±10%	2.52	15 @ 7.96MHz	0.015	11.50	120

WL08(Q) Wire Wound Chip Inductors

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
180	±2, ±5, ±10%	25	45 @ 100MHz	0.750	0.35	800
4700	±2, ±5, ±10%	7.9	25 @ 25MHz	0.090	4.10	260

High Current Electrical Specifications

WL03(H) Wire Wound Chip Inductors / High Current Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
1.6	±5, ±10%	250	24	12.50	0.030	2400
3.6	±5, ±10%	250	24	5.90	0.048	2300
3.9	±5, ±10%	250	25	5.90	0.054	2200
6.8	±5, ±10%	250	35	5.80	0.054	2100
7.5	±5, ±10%	250	38	3.70	0.059	2100
8.2	±5, ±10%	250	38	3.70	0.060	2000
10	±2, ±5, ±10%	250	38	3.70	0.071	2000
12	±2, ±5, ±10%	250	38	3.00	0.075	2000
15	±2, ±5, ±10%	250	38	2.80	0.080	1900
18	±2, ±5, ±10%	250	40	2.80	0.099	1900
22	±2, ±5, ±10%	250	42	2.40	0.099	1800
24	±2, ±5, ±10%	250	42	2.40	0.105	1800

High Q Electrical Specifications

WL02(H) Wire Wound Chip Inductors /High Q Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor		SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
			900MHz	1.7GHz			
1.0	±0.2, ±0.5nH, ±5, ±10%	250	46	75	16.0	0.030	2300
2.0	±0.2, ±0.5nH, ±5, ±10%	250	58	85	15.2	0.038	2100
2.2	±0.2, ±0.5nH, ±5, ±10%	250	60	86	15.1	0.038	2100
2.4	±0.2, ±0.5nH, ±5, ±10%	250	60	83	14.0	0.042	2000
2.7	±0.2, ±0.5nH, ±5, ±10%	250	62	85	13.0	0.075	1500
3.3	±0.2, ±0.5nH, ±5, ±10%	250	66	95	12.8	0.045	1700
3.6	±0.2, ±0.5nH, ±5, ±10%	250	65	94	11.7	0.045	1700
3.9	±0.2, ±0.5nH, ±5, ±10%	250	64	98	9.50	0.045	1700
4.3	±0.5nH, ±5, ±10%	250	63	90	7.15	0.050	1600
4.7	±0.5nH, ±5, ±10%	250	58	83	6.85	0.070	1500
5.1	±2, ±5, ±10%	250	54	76	6.80	0.115	1200
5.6	±2, ±5, ±10%	250	73	105	6.50	0.050	1600
6.2	±2, ±5, ±10%	250	73	100	5.80	0.055	1600
6.8	±2, ±5, ±10%	250	68	94	5.80	0.065	1500
7.5	±2, ±5, ±10%%	250	60	82	5.40	0.090	1400
8.2	±2, ±5, ±10%	250	68	95	5.40	0.065	1500
8.7	±2, ±5, ±10%	250	68	95	5.00	0.065	1500
9.0	±2, ±5, ±10%	250	67	92	5.00	0.080	1400
9.5	±2, ±5, ±10%	250	64	90	4.70	0.090	1400
10	±2, ±5, ±10%	250	62	90	4.70	0.100	1300
11	±2, ±5, ±10%	250	68	98	4.70	0.065	1400
12	±2, ±5, ±10%	250	66	100	4.40	0.100	1200
13	±2, ±5, ±10%	250	62	82	4.20	0.150	870
15	±2, ±5, ±10%	250	62	85	3.90	0.110	1100
16	±2, ±5, ±10%	250	57	77	3.70	0.140	850
18	±2, ±5, ±10%	250	58	74	3.55	0.120	900
19	±2, ±5, ±10%	250	61	88	3.50	0.145	850
20	±2, ±5, ±10%	250	58	76	3.50	0.185	780
21	±2, ±5, ±10%	250	48	62	1.70	0.460	450
22	±2, ±5, ±10%	250	60	74	3.30	0.160	800
23	±2, ±5, ±10%	250	60	77	3.30	0.160	800
24	±2, ±5, ±10%	250	55	71	3.15	0.200	700
25	±2, ±5, ±10%	250	57	73	3.15	0.250	600
26	±2, ±5, ±10%	250	56	74	3.15	0.285	450
27	±2, ±5, ±10%	250	62	86	3.20	0.320	450
30	±2, ±5, ±10%	250	61	87	2.90	0.330	450
33	±2, ±5, ±10%	250	61	80	2.80	0.330	490
36	±2, ±5, ±10%	250	59	76	2.80	0.380	480
37	±2, ±5, ±10%	250	57	72	2.70	0.460	470
39	±2, ±5, ±10%	250	56	84	2.60	0.430	450
40	±2, ±5, ±10%	250	56	75	2.60	0.430	450
43	±2, ±5, ±10%	250	52	68	2.50	0.520	450
47	±2, ±5, ±10%	250	48	62	2.40	0.580	420
51	±2, ±5, ±10%	250	52	59	2.30	0.700	360
56	±2, ±5, ±10%	250	45	30	2.30	0.700	360

WL03(Q) Wire Wound Chip Inductors / High Q Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Q typ at 250(MHz)	SRF typ (GHz)	DCR (Ω) max.	IDC (mA) max.	900MHz		1.7GHz	
							L typ	Q typ	L Typ	Q Typ
1.8	±5, ±10%	250	23	16.0	0.033	2100	1.77	40	1.77	65
2.2	±5, ±10%	250	13	15.0	0.180	900	2.14	25	2.12	35
2.7	±2, ±5, ±10%	250	32	15.0	0.050	900	2.70	40	2.73	75
3.0	±5, ±10%	250	35	9.5	0.024	1000	2.96	65	2.97	85
3.3	±5, ±10%	250	32	9.60	0.024	1900	3.28	67	3.32	104
3.6	±2, ±5, ±10%	250	40	9.70	0.031	1900	3.59	70	3.62	116
3.9	±2, ±5, ±10%	250	35	7.50	0.039	1600	3.88	68	3.95	108
4.3	±2, ±5, ±10%	250	30	7.50	0.080	1300	4.29	58	4.31	91
4.7	±2, ±5, ±10%	250	26	7.90	0.100	1100	4.65	48	4.71	75
5.1	±2, ±5, ±10%	250	40	8.90	0.036	1700	5.08	84	5.12	140
5.6	±2, ±5, ±10%	250	48	6.60	0.036	1700	5.6	87	5.73	456
6.0	±2, ±5, ±10%	250	49	6.00	0.036	1700	5.92	94	6.12	154
6.8	±2, ±5, ±10%	250	42	5.80	0.042	1400	6.83	88	7.05	143
7.2	±2, ±5, ±10%	250	48	5.40	0.052	1400	7.25	96	7.38	139
7.5	±2, ±5, ±10%	250	41	5.30	0.080	1300	7.55	81	7.85	12
8.2	±2, ±5, ±10%	250	46	5.90	0.054	1400	8.21	96	8.39	148
8.7	±2, ±5, ±10%	250	46	5.50	0.054	1400	8.73	97	9.00	149
9.1	±2, ±5, ±10%	250	40	5.10	0.037	1400	9.18	76	9.64	109
9.5	±2, ±5, ±10%	250	49	4.90	0.053	1400	9.56	98	9.99	149
10	±2, ±5, ±10%	250	49	4.30	0.048	1400	10.16	90	10.64	142
11	±2, ±5, ±10%	250	41	4.10	0.058	1400	11.06	78	11.82	108
12	±2, ±5, ±10%	250	37	4.10	0.088	1100	12.26	69	13.2	91
15	±2, ±5, ±10%	250	48	3.60	0.078	1200	15.41	83	17.2	124
16	±2, ±5, ±10%	250	45	3.50	0.085	1100	16.37	77	18.7	116
18	±2, ±5, ±10%	250	41	3.30	0.066	1200	18.56	76	20.9	100
22	±2, ±5, ±10%	250	44	3.15	0.140	850	22.7	77	25.9	88
23	±2, ±5, ±10%	250	40	3.00	0.183	850	24	69	29.53	80
24	±2, ±5, ±10%	250	42	2.95	0.074	1100	24.9	77	28.9	91
27	±2, ±5, ±10%	250	44	2.80	0.150	780	28.4	74	34.0	84
30	±2, ±5, ±10%	250	49	2.80	0.130	920	31.5	82	37.9	82
33	±2, ±5, ±10%	250	45	2.70	0.170	680	34.9	76	42.9	80
36	±2, ±5, ±10%	250	44	2.50	0.225	720	38.5	69	50.0	64
39	±2, ±5, ±10%	250	48	2.45	0.19	680	41.5	78	51.9	74
43	±2, ±5, ±10%	250	45	2.45	0.17	810	45.7	83	58.1	76
47	±2, ±5, ±10%	200	47	2.30	0.24	680	50.6	77	66.9	72
51	±2, ±5, ±10%	200	49	2.30	0.28	660	54.6	73	71.3	62
56	±2, ±5, ±10%	200	50	2.20	0.30	610	60.3	74	79.9	56
68	±2, ±5, ±10%	200	46	2.00	0.33	600	75.5	73	113.3	49
72	±2, ±5, ±10%	150	46	1.90	0.42	550	80.8	69	-	-
75	±2, ±5, ±10%	150	46	1.90	0.52	500	84.6	71	-	-
82	±2, ±5, ±10%	150	45	1.80	0.46	510	94	62	-	-
91	±2, ±5, ±10%	150	45	1.65	0.58	440	103	64	-	-
100	±2, ±5, ±10%	150	49	1.70	0.54	470	114	69	-	-
110	±2, ±5, ±10%	150	47	1.60	0.58	440	126.2	63	-	-
120	±2, ±5, ±10%	150	47	1.55	0.72	420	142.4	61	-	-
150	±2, ±5, ±10%	150	47	1.35	0.82	390	188.8	57	-	-
180	±2, ±5, ±10%	100	48	1.30	1.50	310	232.2	50	-	-
200	±2, ±5, ±10%	100	47	1.25	2.00	280	265	47	-	-
210	±2, ±5, ±10%	100	48	1.20	2.00	280	288	45	-	-
220	±2, ±5, ±10%	100	47	1.10	2.00	280	315	41	-	-
250	±2, ±5, ±10%	100	45	1.05	3.00	240	-	-	-	-
270	±2, ±5, ±10%	100	46	1.05	2.25	260	-	-	-	-
300	±2, ±5, ±10%	100	47	0.99	2.80	220	-	-	-	-
330	±2, ±5, ±10%	100	46	0.93	3.60	180	-	-	-	-
360	±2, ±5, ±10%	100	47	0.93	4.00	170	-	-	-	-
390	±2, ±5, ±10%	100	47	0.88	4.00	170	-	-	-	-

WL05(H) Wire Wound Chip Inductors / High Q Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
2.5	$\pm 5, \pm 10\%$	250	80 @ 1500MHz	6.00	0.020	1600
5.6	$\pm 5, \pm 10\%$	250	98 @ 1500MHz	6.00	0.035	1600
6.2	$\pm 5, \pm 10\%$	250	88 @ 1000MHz	4.75	0.035	1600
6.8	$\pm 5, \pm 10\%$	250	80 @ 1000MHz	4.40	0.035	1600
8.2	$\pm 5, \pm 10\%$	250	75 @ 1000MHz	3.00	0.075	1000
10	$\pm 5, \pm 10\%$	250	80 @ 1000MHz	3.00	0.060	1600
12	$\pm 5, \pm 10\%$	250	80 @ 1000MHz	3.00	0.045	1600
15	$\pm 2, \pm 5, \pm 10\%$	250	80 @ 1000MHz	2.80	0.100	1200
16	$\pm 2, \pm 5, \pm 10\%$	250	72 @ 500MHz	2.95	0.060	1500
18	$\pm 2, \pm 5, \pm 10\%$	250	75 @ 500MHz	2.55	0.060	1400
20	$\pm 2, \pm 5, \pm 10\%$	250	70 @ 500MHz	2.05	0.055	1400
22	$\pm 2, \pm 5, \pm 10\%$	250	80 @ 500MHz	2.00	0.100	1200
27	$\pm 2, \pm 5, \pm 10\%$	250	75 @ 500MHz	2.00	0.070	1300
30	$\pm 2, \pm 5, \pm 10\%$	250	65 @ 500MHz	1.95	0.095	1200
39	$\pm 2, \pm 5, \pm 10\%$	250	65 @ 500MHz	1.60	0.110	1100
48	$\pm 2, \pm 5, \pm 10\%$	200	65 @ 500MHz	1.40	0.095	1200
51	$\pm 2, \pm 5, \pm 10\%$	200	65 @ 500MHz	1.40	0.120	1000

WL08(H) Wire Wound Chip Inductors / High Q Type

Inductance (nH)	Tolerance	L Freq. (MHz)	Quality Factor min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.
3.0	$\pm 5, \pm 10\%$	50	70 @ 1500MHz	6.00	0.04	1600
3.9	$\pm 5, \pm 10\%$	50	75 @ 1500MHz	6.00	0.05	1600
4.1	$\pm 5, \pm 10\%$	50	75 @ 1500MHz	6.00	0.05	1600
7.8	$\pm 5, \pm 10\%$	50	75 @ 500MHz	3.80	0.05	1600
10	$\pm 2, \pm 5, \pm 10\%$	50	60 @ 500MHz	3.60	0.06	1600
12	$\pm 2, \pm 5, \pm 10\%$	50	70 @ 500MHz	2.80	0.06	1500
18	$\pm 2, \pm 5, \pm 10\%$	50	62 @ 350MHz	2.70	0.07	1400
22	$\pm 2, \pm 5, \pm 10\%$	50	62 @ 350MHz	2.05	0.07	1400
33	$\pm 2, \pm 5, \pm 10\%$	50	75 @ 350MHz	1.70	0.09	1300
39	$\pm 2, \pm 5, \pm 10\%$	50	75 @ 350MHz	1.30	0.09	1300
47	$\pm 2, \pm 5, \pm 10\%$	50	75 @ 350MHz	1.45	0.12	1200
56	$\pm 2, \pm 5, \pm 10\%$	50	75 @ 350MHz	1.23	0.12	1200
68	$\pm 2, \pm 5, \pm 10\%$	50	80 @ 350MHz	1.15	0.13	1100
82	$\pm 2, \pm 5, \pm 10\%$	50	80 @ 350MHz	1.06	0.16	1100
100	$\pm 2, \pm 5, \pm 10\%$	50	50 @ 350MHz	0.82	0.16	1000
120	$\pm 2, \pm 5, \pm 10\%$	100	50 @ 100MHz	0.82	0.16	1000

■Parts (3.0nH, 7.8nH) are wound on a low profile bobbin. (Max 2.41×2.01×1.09)

Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method
Inductance	Refer to standard electrical characteristic spec.	HP4286/E4982A
Q		HP4286/E4982A
SRF		HP4287/E4982A
DC Resistance RDC		Micro-Ohm meter (Gom-801G)/E4982A
Rated Current IDC		Applied the current to coils, the temperature of coil increases $\Delta T15^{\circ}\text{C}$ ($T_a=25^{\circ}\text{C}$).
Over Load	Inductors shall have no evidence of electrical and mechanical damage	Applied 2 times of rated allowed DC current to inductor for a period of 5 minutes
Withstanding Voltage	Inductors shall be no evidence of electrical and mechanical damage.	AC voltage of 500 VAC applied between inductors terminal and case for 1 min.
Insulation Resistance	1000M ohm min.	100 V _{DC} applied between inductor terminal and case

Mechanical Performance Test

Item	Requirement	Test Method
Vibration	Appearance: No damage L change: within $\pm 5\%$ Q change: within $\pm 10\%$	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1 min. Amplitude: 1.5 mm Time: 2 hrs for each axis (X, Y & Z), total 6 hrs
Resistance to Soldering Heat		Solder Temperature: $260\pm 5^{\circ}\text{C}$ Immersion Time: 10 ± 2 seconds
Component Adhesion (Push Test)	1 lbs. For 0402 2 lbs. For 0603 3 lbs. For the rest	The device should be soldered ($260\pm 5^{\circ}\text{C}$ for 10 seconds) to a tinned copper subs rate. A dynamiter force gauge should be applied to the side of the component. The device must with stand a minimum force of 2 or 4 pounds without a failure of adhesion on termination
Drop	No damage	Dropping chip by each side and each corner. Drop 10 times in total Drop height: 100 cm Drop weight: 125 g
Solderability	90% covered with solder	Inductor shall be dipped in a melted solder bath at $245\pm 5^{\circ}\text{C}$ for 3 seconds
Resistance to Solvent	No damage on appearance and marking	MIL-STD-202, Method 215

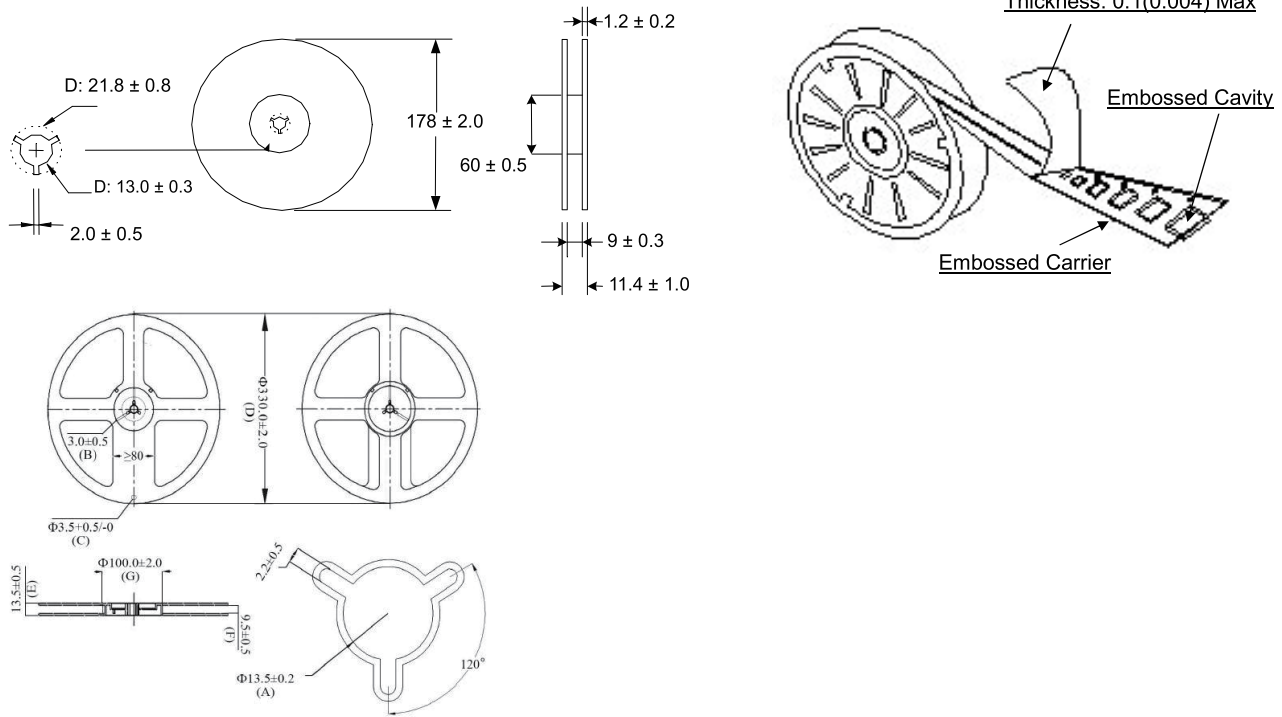
Climatic Test

Item	Requirement	Test Method															
Temperature Characteristic	Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 20\%$	$-40\sim +125^{\circ}\text{C}$															
Humidity		Temperature: $40\pm 2^{\circ}\text{C}$ Relative Humidity: 90~95% Time: 96 ± 2 hrs Measured after exposure in the room condition for 2 hrs															
Low Temperature Storage		Temperature: $-40\pm 2^{\circ}\text{C}$ Time: 96 ± 2 hrs Inductors are tested after 1 hour at room temperature															
Thermal Shock		One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature ($^{\circ}\text{C}$)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 ± 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 ± 2</td> <td>15</td> </tr> <tr> <td>3</td> <td>125 ± 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 ± 2</td> <td>15</td> </tr> </tbody> </table>	Step	Temperature ($^{\circ}\text{C}$)	Time (min.)	1	-25 ± 3	30	2	25 ± 2	15	3	125 ± 3	30	4	25 ± 2	15
Step		Temperature ($^{\circ}\text{C}$)	Time (min.)														
1		-25 ± 3	30														
2		25 ± 2	15														
3		125 ± 3	30														
4	25 ± 2	15															
High Temperature Storage	Temperature: $125\pm 2^{\circ}\text{C}$ Time: 96 ± 2 hrs Measured after exposure in the room condition for 1hour																
High Temperature Load Life	Temperature: $85\pm 2^{\circ}\text{C}$ Time: 1000 ± 12 hrs Load: Allowed DC current																
Damp Heat with Load	Temperature: $40\pm 2^{\circ}\text{C}$ Relative Humidity: 90~95% Time: 1000 ± 12 hrs Load: Allowed DC current																
	There should be no evidence of short of open circuit.																

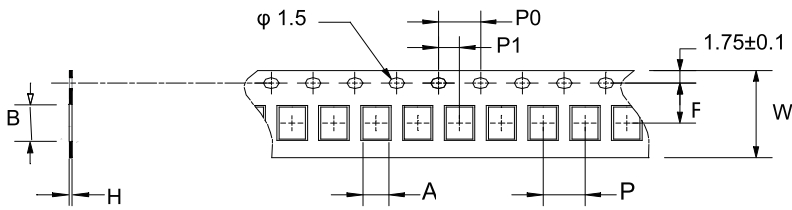
Storage Temperature: $15\sim 28^{\circ}\text{C}$; Humidity < 80%RH

Packaging

Reel Dimensions & Packaging Quantity



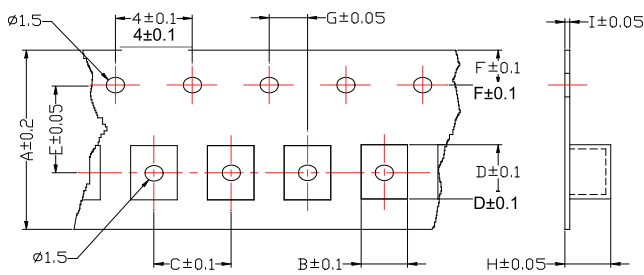
Paper Tape specification and Packaging Quantity



Unit: mm

Type	A	B	H	F	P	P ₀	P ₁	W	Reel (EA)
WL02	0.81	1.23	0.73	3.50	2.00	4.00	2.00	8.00	4,000
WL03	1.35	1.95	0.95	3.50	4.00	4.00	2.00	8.00	4,000/10,000

Embossed Plastic Tape specification and Packaging Quantity



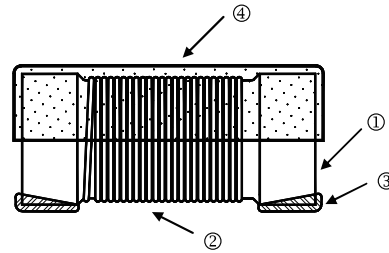
Unit: mm

Type	A	B	C	D	E	F	G	H	I	Reel (EA)
WL05	8	1.85	4	2.30	3.5	1.75	2	1.45	0.23	2,000
WL05 (H)	8	1.85	4	2.30	3.5	1.75	2	1.45	0.23	2,000
WL08	8	2.70	4	2.80	3.5	1.75	2	2.00	0.23	2,000
WL08 (H)	8	2.70	4	2.80	3.5	1.75	2	2.00	0.23	2,000

Wire Wound Chip Inductor (Ferrite / Open Type) – NL Series



Construction



① Ferrite core	③ Electrode
② Magnet wire	④ UV Glue

Features

- Very strong solderability by flow soldering, soldering iron or wave soldering
- Highly accurate dimensions, can be mounted automatically
- Terminals are highly resistant to pull forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity. Super Q characteristics

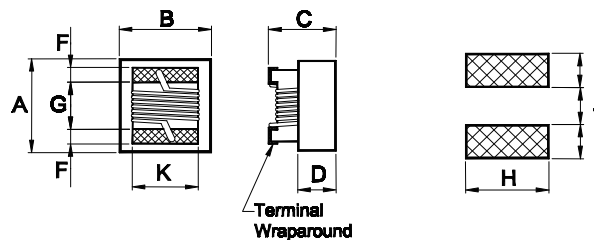
Applications

- Micro Televisions, Liquid Crystal Televisions, Video Cameras, Portable VCRs, Car Radios, Car Stereos, Thin Tape Radios, Television Tuners, Mobile Telephones, Radio and Other Electronic Devices

Part Numbering

NL	05	K	T	C	1R0
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Current	Inductance
	03: 0603 05: 0805 08: 1008	J: ±5% K: ±10% M: ±20%	T: Taping Reel	: Standard C: Large Current	R12: 120nH R27: 270nH 2R7: 2700nH 100: 10µH

Dimensions



Unit: mm

Type	Size (Inch)	A	B	C	D	F	G	H	I	J	K	Weight (g) (1000pcs)
NL03	0603	1.80 max	1.20 max	1.00 max	0.45	0.33	0.95	1.02	0.64	0.64	1.05	9.6
NL05	0805	2.40 max	1.71 max	1.45 max	0.65	0.44	1.02	1.78	1.02	0.76	1.27	14
NL08	1008	2.92 max	2.79 max	2.10 max	1.20	0.45	1.52	2.54	1.02	1.27	2.03	30
NL03(C)	0603	1.80 max	1.20 max	1.10 max	0.45	0.33	0.95	1.02	0.64	0.64	1.05	9.6
NL05(C)	0805	2.40 max	1.71 max	1.45 max	0.65	0.44	1.02	1.78	1.02	0.76	1.27	14
NL08(C)	1008	2.92 max	2.79 max	2.10 max	1.30	0.45	1.52	2.54	1.02	1.27	2.03	30

Standard Electrical Specifications

NL03 Wire Wound Chip Inductors (Ferrite / Open Type) / Standard Type

Codes	Inductance (μH)	Tolerance	Q typ.	Test Freq. (MHz)	SRF (MHz) typ.	DCR (Ω) max.	IDC (mA) typ.	Color Code
R27	0.27	±10, ±20%	13	7.9	900	0.338	950	Green
R47	0.47	±10, ±20%	13	7.9	900	0.338	920	Blue
R68	0.68	±10, ±20%	13	7.9	650	0.351	920	Violet
R78	0.78	±10, ±20%	16	7.9	410	0.364	920	Gray
1R0	1.0	±10, ±20%	16	7.9	390	0.416	860	Black
1R5	1.5	±10, ±20%	16	7.9	160	0.520	720	Brown
1R8	1.8	±10, ±20%	16	7.9	121	0.559	640	Red
2R2	2.2	±10, ±20%	16	7.9	103	0.728	600	Orange
2R7	2.7	±10, ±20%	16	7.9	72	0.806	540	Yellow
3R3	3.3	±10, ±20%	16	7.9	66	0.910	500	Green
3R9	3.9	±10, ±20%	16	7.9	61	1.079	460	Blue
4R7	4.7	±10, ±20%	16	7.9	51	1.261	400	Violet
5R6	5.6	±10, ±20%	16	7.9	47	1.430	380	Gray
6R8	6.8	±10, ±20%	16	7.9	43	1.950	340	White
8R2	8.2	±10, ±20%	16	7.9	40	2.184	300	Black
100	10	±10, ±20%	14	2.5	36	2.405	280	Brown
120	12	±10, ±20%	14	2.5	32	2.964	260	Red
150	15	±10, ±20%	14	2.5	29	3.380	240	Orange
180	18	±10, ±20%	14	2.5	28	3.770	220	Yellow
220	22	±10, ±20%	14	2.5	24	4.693	200	Green
270	27	±10, ±20%	14	2.5	20	6.760	140	Blue
330	33	±10, ±20%	14	2.5	15	8.580	120	Violet
470	47	±10, ±20%	12	2.5	11	14.560	100	Gray

Standard Electrical Specifications

NL05 Wire Wound Chip Inductors (Ferrite / Open Type) / Standard Type

Codes	Inductance (µH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.	Color Code
78N	0.078	±5, ±10%	13	7.9	1500	0.076	2000	Gray
R10	0.10	±10%	20	25	1400	0.10	1700	White
R11	0.11	±10%	25	25	1200	0.10	1700	White
R12	0.12	±5, ±10%	25	25	1000	0.18	1500	Violet
R15	0.15	±5, ±10%	25	25	1000	0.18	1400	Gray
R18	0.18	±5, ±10%	30	25	1000	0.20	1400	Black
R22	0.22	±5, ±10%	30	25	830	0.25	1350	Brown
R27	0.27	±5, ±10%	30	25	800	0.38	1300	Red
R33	0.33	±5, ±10%	30	25	750	0.35	1200	Orange
R39	0.39	±5, ±10%	30	25	700	0.35	1160	Yellow
R47	0.47	±5, ±10%	30	25	690	0.40	1100	Green
R56	0.56	±5, ±10%	30	25	640	0.40	1040	Blue
R62	0.62	±5, ±10%	30	25	640	0.45	980	Brown
R68	0.68	±5, ±10%	30	25	510	0.50	900	Violet
R75	0.75	±5, ±10%	30	25	500	0.50	900	Violet
R82	0.82	±5, ±10%	30	25	500	0.50	900	Gray
R91	0.91	±5, ±10%	30	25	500	0.55	900	Yellow
1R0	1.0	±5, ±10%	20	7.9	470	0.50	840	White
1R2	1.2	±5, ±10%	20	7.9	400	0.75	800	Black
1R5	1.5	±5, ±10%	25	7.9	400	1.00	720	Brown
1R8	1.8	±5, ±10%	25	7.9	230	1.00	660	Red
2R2	2.2	±5, ±10%	25	7.9	200	1.05	600	Orange
2R7	2.7	±5, ±10%	25	7.9	130	1.18	500	Yellow
3R3	3.3	±5, ±10%	25	7.9	160	1.26	480	Green
3R9	3.9	±5, ±10%	25	7.9	130	1.75	440	Blue
4R7	4.7	±5, ±10%	25	7.9	120	1.87	390	Violet
5R6	5.6	±5, ±10%	25	7.9	90	2.00	340	Gray
6R8	6.8	±5, ±10%	25	7.9	55	2.15	300	White
8R2	8.2	±5, ±10%	25	7.9	40	2.37	280	Black
100	10	±5, ±10%	16	2.5	40	2.55	260	Brown
120	12	±5, ±10%	16	2.5	37	2.80	220	Red
150	15	±5, ±10%	16	2.5	30	3.80	200	Orange
180	18	±5, ±10%	16	2.5	23	4.48	180	Yellow
220	22	±5, ±10%	16	2.5	20	6.30	160	Green
270	27	±5, ±10%	16	2.5	19	6.85	140	Blue
330	33	±5, ±10%	16	2.5	18	7.60	120	Violet
390	39	±5, ±10%	15	2.5	16	8.20	100	Gray
470	47	±5, ±10%	13	2.5	13	13.10	60	White

Standard Electrical Specifications

NL08 Wire Wound Chip Inductors (Ferrite / Open Type) / Standard Type

Codes	Inductance (μH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.	Color Code		
R10	0.10	±10%	25	25	930	0.20	1300	Brown	Black	Brown
R12	0.12	±5, ±10%	26	25	930	0.30	1000	Brown	Red	Brown
R15	0.15	±5, ±10%	26	25	930	0.30	1000	Brown	Green	Brown
R18	0.18	±5, ±10%	30	25	930	0.30	960	Brown	Gray	Brown
R20	0.20	±5, ±10%	30	25	735	0.30	960	Red	Black	Brown
R22	0.22	±5, ±10%	27	25	750	0.40	880	Red	Red	Brown
R27	0.27	±5, ±10%	29	25	700	0.42	900	Red	Violet	Brown
R33	0.33	±5, ±10%	30	25	600	0.42	900	Orange	Orange	Brown
R39	0.39	±5, ±10%	30	25	480	0.45	920	Orange	White	Brown
R47	0.47	±5, ±10%	30	25	470	0.50	920	Yellow	Violet	Brown
R56	0.56	±5, ±10%	30	25	460	0.55	900	Green	Blue	Brown
R62	0.62	±5, ±10%	30	25	460	0.55	900	Blue	Red	Brown
R68	0.68	±5, ±10%	30	25	420	0.55	880	Blue	Gray	Brown
R75	0.75	±5, ±10%	30	25	420	0.65	880	Violet	Green	Brown
R82	0.82	±5, ±10%	30	25	380	0.65	840	Gray	Red	Brown
R91	0.91	±5, ±10%	30	25	400	0.65	840	White	Brown	Brown
1R0	1.0	±5, ±10%	25	7.9	300	0.60	800	Brown	Black	Red
1R2	1.2	±5, ±10%	25	7.9	280	0.74	800	Brown	Red	Red
1R5	1.5	±5, ±10%	25	7.9	245	0.85	780	Brown	Green	Red
1R8	1.8	±5, ±10%	25	7.9	240	0.92	780	Brown	Gray	Red
2R2	2.2	±5, ±10%	25	7.9	205	1.10	760	Red	Red	Red
2R7	2.7	±5, ±10%	25	7.9	187	1.22	760	Red	Violet	Red
3R3	3.3	±5, ±10%	25	7.9	165	1.37	740	Orange	Orange	Red
3R9	3.9	±5, ±10%	25	7.9	144	1.66	700	Orange	White	Red
4R7	4.7	±5, ±10%	25	7.9	110	1.68	660	Yellow	Violet	Red
5R6	5.6	±5, ±10%	25	7.9	88	1.75	640	Green	Blue	Red
6R8	6.8	±5, ±10%	25	7.9	70	1.85	640	Blue	Gray	Red
8R2	8.2	±5, ±10%	25	7.9	57	2.00	600	Gray	Red	Red
100	10	±5, ±10%	25	7.9	55	2.32	600	Brown	Black	Orange
120	12	±5, ±10%	15	2.5	52	2.99	560	Brown	Red	Orange
150	15	±5, ±10%	15	2.5	49	3.42	480	Brown	Green	Orange
180	18	±5, ±10%	15	2.5	48	4.65	420	Brown	Gray	Orange
220	22	±5, ±10%	15	2.5	25	5.12	420	Red	Red	Orange
270	27	±5, ±10%	15	2.5	23	5.76	420	Red	Violet	Orange
330	33	±5, ±10%	15	2.5	17	6.44	400	Orange	Orange	Orange
390	39	±5, ±10%	15	2.5	15	6.85	380	Orange	White	Orange
470	47	±5, ±10%	14	2.5	13	9.94	260	Yellow	Violet	Orange
560	56	±5, ±10%	14	2.5	10	10.7	280	Green	Blue	Orange
680	68	±5, ±10%	14	2.5	8	12.8	260	Blue	Gray	Orange
820	82	±5, ±10%	14	2.5	8	18.3	240	Gray	Red	Orange
101	100	±5, ±10%	8	1	7	19.6	200	Brown	Black	Yellow

Large Current Electrical Specifications

NL03 Wound Chip Inductors (Ferrite / Open Type) / **Large Current Type**

Codes	Inductance (µH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.	Color Code
47N	0.047	±5, ±10%	12	7.9	2000	0.075	1800	White
51N	0.051	±5, ±10%	12	7.9	1500	0.075	1800	Violet
56N	0.056	±5, ±10%	7	7.9	1500	0.095	2200	Blue
68N	0.068	±10%	10	7.9	1500	0.12	2200	Gray
72N	0.072	±10%	12	7.9	1500	0.12	2200	Brown
R10	0.10	±5, ±10%	12	7.9	1150	0.13	2200	Black
R12	0.12	±5, ±10%	12	7.9	1100	0.15	1900	Orange
R15	0.15	±5, ±10%	15	7.9	1050	0.15	1800	Brown
R18	0.18	±5, ±10%	15	7.9	950	0.15	1800	Green
R22	0.22	±5, ±10%	15	7.9	900	0.30	1300	Red
R24	0.24	±5, ±10%	15	7.9	850	0.16	1700	Green
R27	0.27	±5, ±10%	15	7.9	835	0.30	1400	Yellow
R33	0.33	±5, ±10%	15	7.9	725	0.40	1300	Orange
R36	0.36	±5, ±10%	15	7.9	720	0.41	1300	Green
R39	0.39	±5, ±10%	15	7.9	680	0.41	1200	Blue
R47	0.47	±5, ±10%	15	7.9	640	0.43	1200	Black
R56	0.56	±5, ±10%	15	7.9	630	0.44	1200	Brown
R65	0.65	±5, ±10%	15	7.9	510	0.52	1000	Blue
R68	0.68	±5, ±10%	15	7.9	510	0.52	1000	Red
R78	0.78	±5, ±10%	15	7.9	465	0.63	990	Orange
R82	0.82	±5, ±10%	15	7.9	460	0.69	990	Yellow
R90	0.90	±5, ±10%	15	7.9	350	0.81	950	Black
1R0	1.0	±5, ±10%	15	7.9	320	0.81	850	Green
1R2	1.2	±5, ±10%	15	7.9	270	0.87	850	Blue
1R5	1.5	±5, ±10%	15	7.9	230	0.96	830	Violet
1R8	1.8	±5, ±10%	15	7.9	210	1.10	820	Gray
2R2	2.2	±5, ±10%	15	7.9	115	1.20	720	White
2R7	2.7	±5, ±10%	15	7.9	100	1.38	700	Black
3R0	3.0	±5, ±10%	15	7.9	90	1.45	680	Black
3R3	3.3	±5, ±10%	15	7.9	84	1.50	640	Brown
3R9	3.9	±5, ±10%	15	7.9	75	1.50	630	Red
4R7	4.7	±5, ±10%	15	7.9	67	2.10	530	Orange
5R6	5.6	±5, ±10%	15	7.9	55	2.37	510	Yellow
6R8	6.8	±5, ±10%	15	7.9	48	3.10	490	Green
7R8	7.8	±5, ±10%	15	7.9	40	3.35	420	Blue
8R2	8.2	±5, ±10%	15	7.9	38	3.50	450	Violet
100	10	±5, ±10%	15	7.9	32	4.46	370	Gray
150	15	±5, ±10%	14	7.9	25	9.50	240	White

Large Current Electrical Specifications

NL05 Wire Wound Chip Inductors (Ferrite / Open Type) / **Large Current Type**

Codes	Inductance (μH)	Tolerance	Q typ.	Test Freq. (MHz)	SRF (MHz) typ.	DCR (Ω) max.	IDC (mA) typ.	Color Code
R10	0.10	±10, ±20%	9	7.9	1700	0.091	2400	Black
R15	0.15	±10, ±20%	12	7.9	1500	0.104	1900	Brown
R22	0.22	±10, ±20%	12	7.9	1200	0.130	1700	Red
R33	0.33	±10, ±20%	12	7.9	900	0.156	1400	Orange
R47	0.47	±10, ±20%	14	7.9	850	0.156	1400	Blue
R56	0.56	±10, ±20%	14	7.9	360	0.195	1200	Violet
R68	0.68	±10, ±20%	14	7.9	290	0.195	1200	Gray
R82	0.82	±10, ±20%	14	7.9	208	0.195	1100	White
1R0	1.00	±10, ±20%	14	7.9	208	0.169	1100	Black
1R2	1.20	±10, ±20%	14	7.9	159	0.208	960	Red
1R5	1.50	±10, ±20%	14	7.9	159	0.221	920	Brown
1R8	1.80	±10, ±20%	14	7.9	112	0.260	860	Orange
2R2	2.20	±10, ±20%	13	7.9	87	0.286	740	Red
2R7	2.70	±10, ±20%	13	7.9	72	0.325	680	Yellow
3R3	3.30	±10, ±20%	12	7.9	70	0.364	620	Orange
3R9	3.90	±10, ±20%	14	7.9	61	0.494	580	Green
4R7	4.70	±10, ±20%	14	7.9	51	0.559	520	Yellow
5R6	5.60	±10, ±20%	12	7.9	47	0.650	480	Blue
6R8	6.80	±10, ±20%	14	7.9	46	0.884	420	Green
8R2	8.20	±10, ±20%	13	7.9	33	0.949	400	Violet
100	10	±5, ±10, ±20%	14	2.5	31	1.105	360	Blue
120	12	±5, ±10, ±20%	14	2.5	30	1.17	340	Gray
150	15	±5, ±10, ±20%	15	2.5	28	1.82	300	Violet
180	18	±5, ±10, ±20%	15	2.5	27	2.01	280	White
220	22	±5, ±10, ±20%	15	2.5	20	2.288	240	Gray
270	27	±5, ±10, ±20%	15	2.5	17	2.60	220	Black
330	33	±5, ±10, ±20%	15	2.5	17	3.055	200	White
390	39	±5, ±10, ±20%	14	2.5	15	4.355	180	Brown
470	47	±5, ±10, ±20%	14	2.5	15	4.42	160	Black
560	56	±5, ±10, ±20%	14	2.5	10	5.746	150	Yellow
680	68	±5, ±10, ±20%	14	2.5	10	5.785	140	Brown
820	82	±5, ±10, ±20%	14	2.5	10	9.75	100	Orange
101	100	±5, ±10, ±20%	10	1	9	9.75	100	Red
221	220	±5, ±10, ±20%	8	1	4	30.03	70	Blue

Large Current Electrical Specifications

NL08 Wound Chip Inductors (Ferrite / Open Type) / **Large Current Type**

Codes	Inductance (µH)	Tolerance	Q typ.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.	Color Code		
								1st	2nd	3rd
R10	0.10	±5, ±10%	35	25	1500	0.05	3200	Brown	Red	Brown
R22	0.22	±5, ±10%	35	25	800	0.15	2900	Red	Red	Brown
R39	0.39	±5, ±10%	35	25	460	0.20	2100	Orange	White	Brown
R47	0.47	±10%	35	25	460	0.20	2100	Yellow	Violet	Brown
R56	0.56	±5, ±10%	35	25	360	0.26	1800	Green	Blue	Brown
R68	0.68	±5, ±10%	35	25	400	0.30	1700	Blue	Gray	Brown
R82	0.82	±5, ±10%	35	25	360	0.35	1400	Gray	Red	Brown
1R0	1.0	±10%	32	7.9	340	0.34	1700	Brown	Black	Red
1R1	1.1	±10%	25	7.9	300	0.34	1500	Brown	Brown	Red
1R2	1.2	±5, ±10%	25	7.9	300	0.25	1600	Brown	Red	Red
1R5	1.5	±5, ±10%	32	7.9	230	0.42	1200	Brown	Green	Red
1R8	1.8	±5, ±10%	27	7.9	180	0.45	1100	Brown	Gray	Red
2R2	2.2	±5, ±10%	27	7.9	140	0.50	1100	Red	Red	Red
2R7	2.7	±5, ±10%	27	7.9	130	0.55	1000	Red	Violet	Red
3R3	3.3	±5, ±10%	27	7.9	125	0.60	1000	Orange	Orange	Red
3R9	3.9	±5, ±10%	27	7.9	100	0.80	990	Orange	White	Red
4R7	4.7	±5, ±10%	30	7.9	90	0.90	880	Yellow	Violet	Red
5R6	5.6	±5, ±10%	27	7.9	60	1.00	850	Green	Blue	Red
6R8	6.8	±5, ±10%	27	7.9	60	1.05	840	Blue	Gray	Red
8R2	8.2	±5, ±10%	25	7.9	55	1.20	810	Gray	Red	Red
100	10	±5, ±10%	23	2.5	55	1.55	700	Brown	Black	Orange
120	12	±5, ±10%	23	2.5	36	2.10	580	Brown	Red	Orange
150	15	±5, ±10%	23	2.5	36	2.38	580	Brown	Green	Orange
180	18	±5, ±10%	23	2.5	32	2.50	520	Brown	Gray	Orange
220	22	±5, ±10%	23	2.5	29	2.92	500	Red	Red	Orange
270	27	±10%	23	2.5	22	3.70	450	Red	Violet	Orange
330	33	±5, ±10%	23	2.5	21	4.10	420	Orange	Orange	Orange
390	39	±5, ±10%	18	2.5	15	5.50	340	Orange	White	Orange
470	47	±5, ±10%	23	2.5	17	7.80	310	Yellow	Violet	Orange
680	68	±5, ±10%	20	2.5	9	11.5	220	Blue	Gray	Orange
101	100	±5, ±10%	13	1	4	13.2	210	Brown	Black	Yellow
151	150	±5, ±10%	13	1	3	22.5	170	Brown	Green	Yellow
221	220	±5, ±10%	13	1	3	26.5	160	Red	Red	Yellow
271	270	±5, ±10%	13	1	2	32.0	135	Red	Violet	Yellow
331	330	±5, ±10%	13	1	2	32.5	130	Orange	Orange	Yellow

■ Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method	
Inductance	Refer to standard electrical characteristic spec.	HP E4991A+HP16197A (The electrical specification test by the smallest gap position) or HP16193A	
Q			
SRF			
DC Resistance DCR			DIGITAL MILLIOHM METER Chroma 16502, or equivalent.
Rated Current IDC			Applied the current to coils, The inductance change should be less than 10% to initial value

Mechanical Performance Test

Item	Requirement	Test Method
Solderability	The electrodes shall be at least 90% covered with new solder coating	Dip pads in flux and dip in solder pot(96.5 Sn/3.5 Ag solder) at 255±5°C.
Resistance to Soldering Heat	Appearance: No damage L change: within±10%	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag solder paste. Solder process shall be at a maximum temperature of 260°C. For 96.5 Sn/3.5 Ag solder paste: >217°C for 90 seconds
Vibration	Appearance: No damage L change: within±10%	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55Hz Amplitude: 1.5 mm Time: 2 hrs for each axis (X, Y&Z), total 6 hrs

Climatic Test

Item	Requirement	Test Method
Temperature Cycle	Appearance: No damage L change: within±10%	-40~105°C, 5 cycles Measured after exposure in the room condition for 2 hrs
Satic Humidity	Inductors must not have a shorted or openwinding	85±2°C, 90%~95%RH., for 240 hrs Measured after exposure in the room condition for 2 hrs
High Temperature Resistance	Appearance: No damage L change: within±10%	105±2°C for 50±12 hrs Measured after exposure in the room condition for 2 hrs
Component Adhesion (Push Test)	0603: 0.45Kg 0805: 0.9Kg 1008: 1.8Kg	Inductors shall be reflow soldered(255±5°C for 10 seconds) to a tinned copper substrate). A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.
Low Temperature Resistance	Appearance: No damage L change: within±10%	-40±2°C for 48±12 hrs Measured after exposure in the room condition for 2 hrs
Resistance to Solvent	There must be on case deformation, change in dimensions, or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water

■ Storage Temperature: 5~40°C; Humidity 10~75%RH

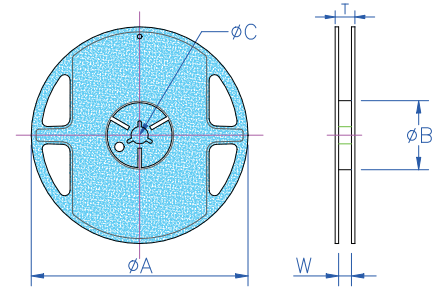
■ Operating Temperature Range: -40~+105°C

Packaging

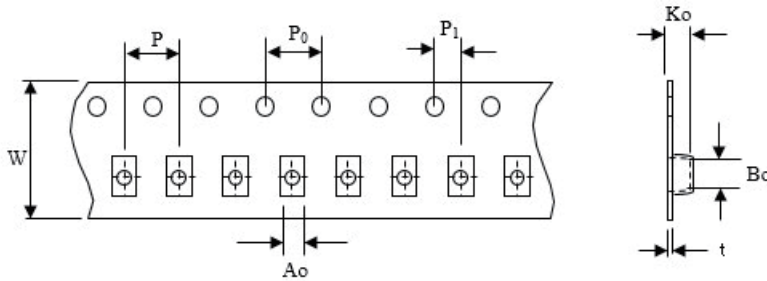
Packaging Quantity & Reel Specifications

Unit: mm

Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
NL03	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	4000
NL05	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	2000
NL08	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	2000



Embossed Plastic Tape Specifications



Unit: mm

Type	W	P	P ₀	P ₁	A ₀	B ₀	K ₀	t
NL03	8.00±0.10	4.00±0.10	4.00±0.10	2.00±0.10	1.25±0.10	1.90±0.10	1.05±0.10	0.22
NL05	8.00±0.10	4.00±0.10	4.00±0.10	2.00±0.10	1.65±0.10	2.40±0.10	1.30±0.10	0.22
NL08	8.00±0.10	4.00±0.10	4.00±0.10	2.00±0.10	2.50±0.10	2.85±0.10	2.00±0.10	0.22

Color Coding

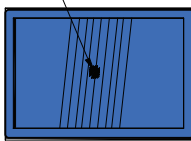
0603 / 0805 / 1008 Type

Because of small sizes, these parts are marked with a single color dot.

The inductance value represented by the dot is shown on the data page for each type.

0603 / 0805

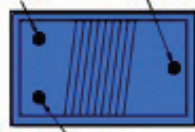
1st Code



Color Coding

1008

1st Code 3rd Code

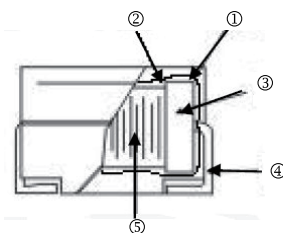


2nd Code

Color Coding

Wire Wound Chip Inductor (Ferrite) – NL-M Series

Construction



① Molding material	④ Lead (Tinned wire)
② Coating	⑤ Enameled wire
③ Core	

Features

- Lead-free materials is used for the plating on the terminals
- The product uses metal terminals, which realize excellent connection reliability
- High resistance to heat, humidity, mechanical shocks and presser.
- Accurate dimensions for automatically surface mounted
- The product has good heat durability that withstands lead-free compatible reflow soldering conditions

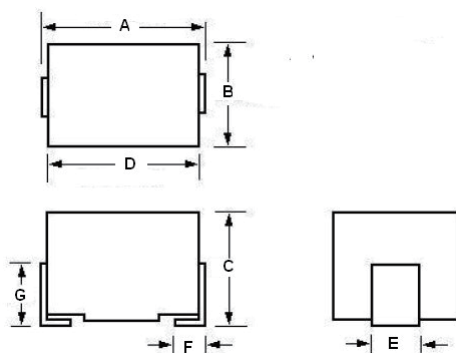
Applications

- Micro Televisions, Liquid Crystal Televisions, Video Cameras, Portable VCRs, Car Radios, Car Stereos, Thin Tape Radios, Television Tuners, Mobile Telephones, Radio and Other Electronic Devices

Part Numbering

NL	05	K	T	C	1R0	-M
Product Type	Dimensions (LxW)	Inductance Tolerance	Packaging Code	Current	Inductance	Special
	10: 1210 12: 1812	J: ±5% K: ±10% M: ±20%	T: Taping Reel	: Standard C: Large Current	R12: 120nH R27: 270nH 2R7: 2700nH 100: 10µH	

Dimensions



Unit: mm

Type	Size (Inch)	A	B	C	D	E	F	G	H	I	J	Weight (g) (1000pcs)
NL10-M	1210	3.2±0.4	2.5±0.2	2.2±0.2	2.9±0.3	1.0±0.2	0.6±0.2	1.2±0.2	1.40	1.00	1.80	49
NL12-M	1812	4.5±0.3	3.2±0.2	3.2±0.2	4.2±0.3	1.1±0.2	1.0±0.2	-	1.60	1.50	2.20	125
NL10(C)-M	1210	3.2±0.4	2.5±0.2	2.2±0.2	2.9±0.3	1.0±0.2	0.6±0.2	1.2±0.2	1.40	1.00	1.80	49
NL12(C)-M	1812	4.5±0.3	3.2±0.2	3.2±0.2	4.2±0.3	1.1±0.2	1.0±0.2	-	1.60	1.50	2.20	125

Standard Electrical Specifications

NL10-M Wire Wound Chip Inductors (Ferrite / Molding Type) / Standard Type

Codes	Inductance (μ H)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz)		DCR (Ω) max.	IDC (mA) max.
					min.	typ.		
R10	0.10	$\pm 10, \pm 20\%$	28	100	700	750	0.44	450
R12	0.12	$\pm 10, \pm 20\%$	30	25.2	500	600	0.22	450
R15	0.15	$\pm 10, \pm 20\%$	30	25.2	450	500	0.25	450
R18	0.18	$\pm 10, \pm 20\%$	30	25.2	400	450	0.28	450
R22	0.22	$\pm 10, \pm 20\%$	30	25.2	350	433	0.32	450
R27	0.27	$\pm 10, \pm 20\%$	30	25.2	320	426	0.36	450
R33	0.33	$\pm 10, \pm 20\%$	30	25.2	300	416	0.40	450
R39	0.39	$\pm 10, \pm 20\%$	30	25.2	250	386	0.45	450
R47	0.47	$\pm 10, \pm 20\%$	30	25.2	220	352	0.50	450
R56	0.56	$\pm 10, \pm 20\%$	30	25.2	180	325	0.55	450
R68	0.68	$\pm 10, \pm 20\%$	30	25.2	160	308	0.60	450
R82	0.82	$\pm 10, \pm 20\%$	30	25.2	140	289	0.65	450
1R0	1.0	$\pm 5, \pm 10\%$	30	7.96	120	256	0.70	400
1R2	1.2	$\pm 5, \pm 10\%$	30	7.96	100	205	0.75	390
1R5	1.5	$\pm 5, \pm 10\%$	30	7.96	85	125	0.85	370
1R8	1.8	$\pm 5, \pm 10\%$	30	7.96	80	99	0.90	350
2R2	2.2	$\pm 5, \pm 10\%$	30	7.96	75	100	1.00	320
2R7	2.7	$\pm 5, \pm 10\%$	30	7.96	70	80	1.10	290
3R3	3.3	$\pm 5, \pm 10\%$	30	7.96	60	69	1.20	260
3R9	3.9	$\pm 5, \pm 10\%$	30	7.96	55	63	1.30	250
4R7	4.7	$\pm 5, \pm 10\%$	30	7.96	50	58	1.50	220
5R6	5.6	$\pm 5, \pm 10\%$	30	7.96	45	52	1.60	200
6R8	6.8	$\pm 5, \pm 10\%$	30	7.96	40	46	1.80	180
8R2	8.2	$\pm 5, \pm 10\%$	30	7.96	35	40	2.00	170
100	10	$\pm 5, \pm 10\%$	30	2.52	30	35	2.10	150
120	12	$\pm 5, \pm 10\%$	30	2.52	20	28	2.50	140
150	15	$\pm 5, \pm 10\%$	30	2.52	20	25	2.80	130
180	18	$\pm 5, \pm 10\%$	30	2.52	20	23	3.30	120
220	22	$\pm 5, \pm 10\%$	30	2.52	20	22.6	3.70	110
270	27	$\pm 5, \pm 10\%$	30	2.52	20	22	5.00	80
330	33	$\pm 5, \pm 10\%$	30	2.52	17	20	5.60	70
390	39	$\pm 5, \pm 10\%$	30	2.52	16	18	6.40	65
470	47	$\pm 5, \pm 10\%$	30	2.52	15	17	7.00	60
560	56	$\pm 5, \pm 10\%$	30	2.52	13	15	8.00	55
680	68	$\pm 5, \pm 10\%$	30	2.52	12	13.8	9.00	50
820	82	$\pm 5, \pm 10\%$	30	2.52	11	12.7	10.00	45
101	100	$\pm 5, \pm 10\%$	20	0.796	10	11.5	10.00	40
121	120	$\pm 5, \pm 10\%$	20	0.796	10	11	11.00	70
151	150	$\pm 5, \pm 10\%$	20	0.796	8	9.2	15.00	65
181	180	$\pm 5, \pm 10\%$	20	0.796	7	8.5	17.00	60
221	220	$\pm 5, \pm 10\%$	20	0.796	7	8	21.00	50

Standard Electrical Specifications

NL12-M Wire Wound Chip Inductors (Ferrite / Molding Type) / Standard Type

Codes	Inductance (μH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz)		DCR (Ω) max.	IDC (mA) max.
					min.	typ.		
R10	0.10	±10,±20%	35	25.2	300	620	0.18	800
R12	0.12	±10,±20%	35	25.2	280	610	0.20	770
R15	0.15	±10,±20%	35	25.2	250	590	0.22	730
R18	0.18	±10,±20%	35	25.2	220	570	0.24	700
R22	0.22	±10,±20%	40	25.2	200	505	0.25	665
R27	0.27	±10,±20%	40	25.2	180	450	0.26	635
R33	0.33	±10,±20%	40	25.2	165	425	0.28	605
R39	0.39	±10,±20%	40	25.2	150	390	0.30	575
R47	0.47	±10,±20%	40	25.2	145	350	0.32	545
R56	0.56	±10,±20%	40	25.2	140	325	0.36	520
R68	0.68	±10,±20%	40	25.2	135	300	0.40	500
R82	0.82	±10,±20%	40	25.2	130	275	0.45	475
1R0	1.0	±5,±10, ±20%	50	7.96	100	250	0.50	450
1R2	1.2	±5,±10, ±20%	50	7.96	80	240	0.55	430
1R5	1.5	±5,±10, ±20%	50	7.96	70	210	0.60	410
1R8	1.8	±5,±10, ±20%	50	7.96	60	190	0.65	390
2R2	2.2	±5,±10, ±20%	50	7.96	55	160	0.70	380
2R7	2.7	±5,±10, ±20%	50	7.96	50	150	0.75	370
3R3	3.3	±5,±10, ±20%	50	7.96	45	110	0.80	355
3R9	3.9	±5,±10, ±20%	50	7.96	40	100	0.90	330
4R7	4.7	±5,±10, ±20%	50	7.96	35	80	1.00	315
5R6	5.6	±5,±10, ±20%	50	7.96	33	50	1.10	300
6R8	6.8	±5,±10, ±20%	50	7.96	27	35	1.20	285
8R2	8.2	±5,±10%	50	7.96	25	28	1.40	270
100	10	±5,±10%	50	2.52	20	22	1.60	250
120	12	±5,±10%	50	2.52	18	20	2.00	225
150	15	±5,±10%	50	2.52	17	18	2.50	200
180	18	±5,±10%	50	2.52	15	16	2.80	190
220	22	±5,±10%	50	2.52	13	14	3.20	180
270	27	±5,±10%	50	2.52	12	13	3.60	170
330	33	±5,±10%	50	2.52	11	12	4.00	160
390	39	±5,±10%	50	2.52	10	11	4.50	150
470	47	±5,±10%	50	2.52	10	10.5	5.00	140
560	56	±5,±10%	50	2.52	9	10	5.50	135
680	68	±5,±10%	50	2.52	9	9.5	6.00	130
820	82	±5,±10%	50	2.52	8	8.5	7.00	120
101	100	±5,±10%	40	0.796	8	8.5	8.00	110
121	120	±5,±10%	40	0.796	6	7.0	8.00	110
151	150	±5,±10%	40	0.796	5	6.0	9.00	105
181	180	±5,±10%	40	0.796	5	5.5	9.50	102
221	220	±5,±10%	40	0.796	4	5.0	10.0	100
271	270	±5,±10%	40	0.796	4	4.5	12.0	92
331	330	±5,±10%	40	0.796	3.5	4.0	14.0	85
391	390	±5,±10%	40	0.796	3	3.5	18.0	80
471	470	±5,±10%	40	0.796	3	3.5	26.0	62
561	560	±5,±10%	30	0.796	3	3.45	30.0	50
681	680	±5,±10%	30	0.796	3	3.45	30.0	50
821	820	±5,±10%	30	0.796	2.5	3.0	35.0	30
102	1000	±5,±10%	20	0.252	2.5	2.8	40.0	30

Large Current Electrical Specifications

NL10-M Wire Wound Chip Inductors (Ferrite / Molding Type) / [Large Current Type](#)

Codes	Inductance (µH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz)		DCR (Ω) max.	IDC (mA) max.
					min.	typ.		
1R0	1.0	±5,±10,±20%	10	7.96	100	117	0.156	770
1R5	1.5	±5,±10,±20%	10	7.96	80	100	0.195	580
2R2	2.2	±5,±10,±20%	10	7.96	65	80	0.260	480
3R3	3.3	±5,±10,±20%	10	7.96	55	60	0.325	400
4R7	4.7	±5,±10,±20%	10	7.96	45	50	0.520	320
6R8	6.8	±5,±10,±20%	10	7.96	35	40	0.650	280
8R2	8.2	±5,±10,±20%	10	7.96	31	35	0.878	250
100	10	±5,±10,±20%	15	2.52	28	30	1.105	220
150	15	±5,±10,±20%	15	2.52	25	27	1.690	180
220	22	±5,±10,±20%	15	2.52	20	22	2.600	145
270	27	±5,±10,±20%	15	2.52	18	19	3.000	125
330	33	±5,±10,±20%	15	2.52	15	17	3.640	115
390	39	±5,±10,±20%	15	2.52	14	16	4.500	110
470	47	±5,±10,±20%	20	2.52	13	15	5.460	105
560	56	±5,±10,±20%	20	2.52	11	13	7.050	95
680	68	±5,±10,±20%	20	2.52	10	11	8.450	85
820	82	±5,±10,±20%	20	2.52	9	10	8.710	80
101	100	±5,±10,±20%	20	0.796	8	9	9.140	75

NL12-M Wire Wound Chip Inductors (Ferrite / Molding Type) / [Large Current Type](#)

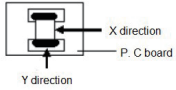
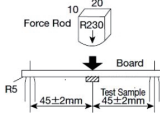
Codes	Inductance (µH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz)		DCR (Ω) max.	IDC (mA) max.
					min.	typ.		
1R0	1.0	±5,±10,±20%	10	7.96	180	265	0.11	1050
1R2	1.2	±5,±10,±20%	10	7.96	160	180	0.12	1000
1R5	1.5	±5,±10,±20%	10	7.96	130	170	0.15	950
1R8	1.8	±5,±10,±20%	10	7.96	100	105	0.16	900
2R2	2.2	±5,±10,±20%	10	7.96	80	92	0.18	850
2R7	2.7	±5,±10,±20%	10	7.96	60	69	0.20	800
3R3	3.3	±5,±10,±20%	10	7.96	45	55	0.22	750
3R9	3.9	±5,±10,±20%	10	7.96	40	45	0.24	700
4R7	4.7	±5,±10,±20%	10	7.96	35	43	0.27	650
5R6	5.6	±5,±10,±20%	10	7.96	30	40	0.30	650
6R8	6.8	±5,±10,±20%	10	7.96	28	35	0.35	600
8R2	8.2	±5,±10,±20%	10	7.96	25	30	0.40	600
100	10	±5,±10,±20%	10	2.52	22	27	0.50	550
120	12	±5,±10,±20%	10	2.52	21	25	0.60	500
150	15	±5,±10,±20%	10	2.52	20	23	0.70	450
180	18	±5,±10,±20%	10	2.52	19	22	0.80	400
220	22	±5,±10,±20%	10	2.52	18	20.7	0.90	370
270	27	±5,±10,±20%	10	2.52	16	18.4	1.20	330
330	33	±5,±10,±20%	10	2.52	14	15	1.40	300
390	39	±5,±10,±20%	10	2.52	12	13	1.60	280
470	47	±5,±10,±20%	10	2.52	11.5	12.5	1.90	260
560	56	±5,±10,±20%	10	2.52	11	12	2.20	240
680	68	±5,±10,±20%	10	2.52	10	11	2.60	220
820	82	±5,±10,±20%	10	2.52	9	10	3.50	200
101	100	±5,±10,±20%	20	0.796	8	9	4.00	180
121	120	±5,±10,±20%	20	0.796	7.5	8.6	4.50	160
151	150	±5,±10,±20%	20	0.796	7	8	6.50	140
181	180	±5,±10,±20%	20	0.796	6.5	7.5	7.50	120
221	220	±5,±10,±20%	20	0.796	5.5	6.3	9.00	120
271	270	±5,±10,±20%	20	0.796	5	5.7	11.0	100
331	330	±5,±10,±20%	20	0.796	4	4.6	13.0	90

■ Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method
Inductance	Refer to standard electrical characteristic spec.	HP4285A+16034E or Equivalent
Q		HP4285A+16034E or Equivalent
SRF		HP8753C Network Analyzer or Equivalent
DC Resistance DCR		AX-111A Digital milliohm meter or Equivalent
Rated Current IDC		Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller

Mechanical Performance Test

Item	Requirement	Test Method
Solderability	The electrodes shall be at least 95% covered with new solder coating	250±5°C for 5±0.5 seconds All sides of mounting terminal shall be immers
Resistance to Soldering Heat	Appearance: No damage L change: within±10%	Method 1: Immerse in the solder of 250±5°C for 10±1sec, load in room temperature 2 hours Method 2: The test sample shall be exposed to reflow with peak temperature at 250°C for 20 to 40 seconds, 2 times. Load in room temperature 30 min.
Vibration	Appearance: No damage L change: within±10%	The test samples shall be soldered to the test board by the reflow. Then it shall be submitted to below conditions. Frequency Range: 10~55Hz; Total Amplitude :1.5mm (May not exceed acceleration 196m/s ²) ; Sweeping Method: 10→55→10Hz for 1min Time: For 2 hours on each X, Y, and Z axis.
Adhesion of Terminal Electrode	Appearance: No damage L change: within±10%	Applying force: 9.8N(1kg) Duration: 10±2 seconds Direction: X, Y The test samples shall be soldered to the test board by the reflow. 
Resistance to Flexure of Substrate	Appearance: No damage L change: within±10%	The test samples shall be soldered to the test board by the reflow. Then apply a force in the direction shown below, flexure: 2mm. 
Dropping	Appearance: No damage L change: within±10%	Packing ok product, Dropping 1m over the ground of concrete or cement, 3 times

Climatic Test

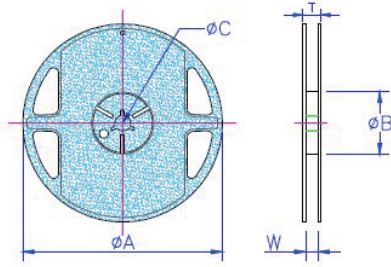
Item	Requirement	Test Method															
Thermal Shock	Appearance: No damage L change: within±10%	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±3</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>20±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>125±2</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>20±2</td> <td>3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Time (min.)	1	-40±3	30±3	2	20±2	3	3	125±2	30±3	4	20±2	3
Step		Temperature (°C)	Time (min.)														
1		-40±3	30±3														
2		20±2	3														
3	125±2	30±3															
4	20±2	3															
High Temperature Life Test	125±3°C, load 1000±6 hrs																
Low Temperature Life Test	-40±2°C, load 1000±6 hrs																
Damp Heat	40±2°C, 90~95% RH, load 1000±6 hrs																
Temperature Characteristic	Appearance: No damage L change: within±20%	Measurement of inductance shall be taken at temperature range within -40~125°C. With reference to inductance value at +20°C change rate shall be calculated. Change of maximum inductance deviation in step 1 to 5: Temperature at step 1: 20°C Temperature at step 2: Minimum operating temperature Temperature at step 3: 20°C (Standard temperature) Temperature at step 4 :Maximum operating temperature Temperature at step 5 :20°C															

■ Storage Temperature: -10~40°C; Humidity < 80%RH

■ Operating Temperature Range: -40~+125°C(Including self-heating temperature rise.)

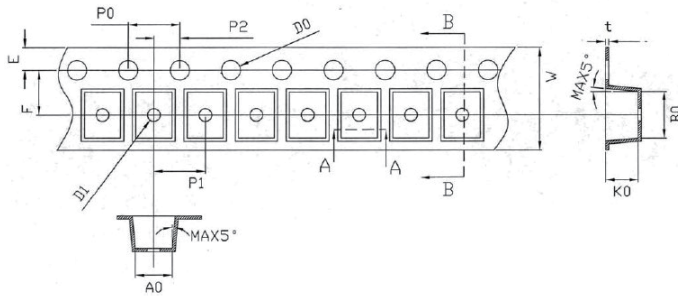
Packaging

Packaging Quantity & Reel Specifications



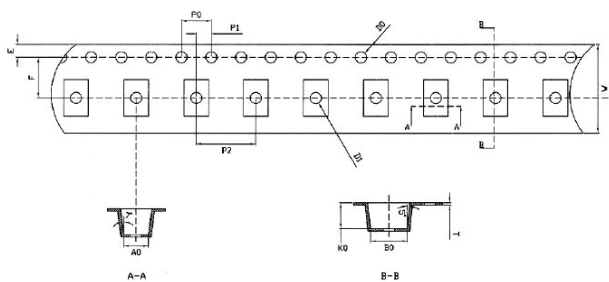
Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
NL10(C)-M	178±2.0	50 min	13±0.3	10 max	14.4 max	2000
NL12(C)-M	178±2.0	50 min	13±0.3	14 max	18.4 max	500

Embossed Plastic Tape Specifications



Unit: mm

Type	A0	B0	E	F	P0	P1	P2	D0	D1	K0	t
NL10(C)-M	2.88	3.65	1.75	3.50	4.00	4.00	2.00	1.50	1.00	2.50	0.26



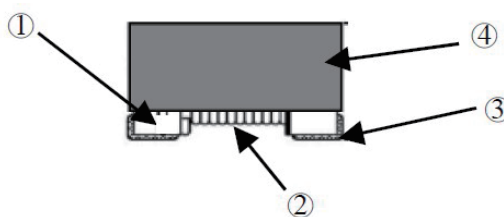
Unit: mm

Type	A0	B0	E	F	P0	P1	P2	D0	D1	K0	T
NL12(C)-M	3.31	4.95	1.75	5.50	4.00	2.00	8.00	1.50	1.00	3.50	0.35

Wire Wound Power Inductor (Metal) – NLD Series



Construction

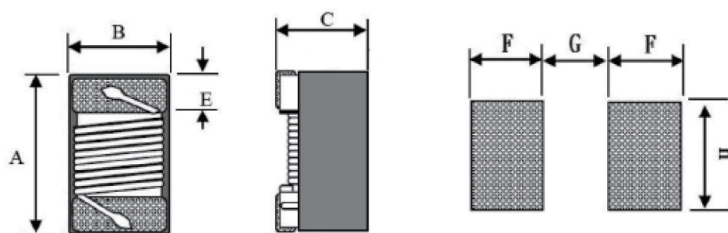


① Metal core	③ Terminal
② Enameled copper wire	④ Magnetic power resin

Features

- Utilizing a miniaturized winding structure.
- These products provide low DC resistance and high current.
- Precision inductance tolerance is available.

Dimensions



Unit: mm

Type	Size (Inch)	A	B	C	E	F	G	H
02	0402	1.15±0.10	0.65±0.10	0.60±0.10	0.20	0.36	0.46	0.66
03	0603	1.75±0.10	1.15±0.10	1.00±0.05	0.20	0.64	0.64	1.02

Applications

- Truly Wireless Earbuds
- Wireless Headphones
- Wearable Smart Devices
- Game Controllers
- Handheld Radios
- Point of Sales Devices

Part Numbering

NLD	02	M	T	1R0
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Inductance
	02: 0402 03: 0603	M: ±20% N: ±30%	T: Taping Reel	1R0: 1.0μH 100: 10μH

Standard Electrical Specifications

NLD02 Wire Wound Power Inductors(Metal)

Codes	Inductance (μH)	Tolerance	DCR (Ω) ±20%	Test Freq. (MHz)	Isat (A)		Irms (A) Typ.
					Typ.	Max.	
1R0	1.0	M,N	0.28	1	1.1	1.0	1.1
2R2	2.2	M,N	0.88	1	0.6	0.5	0.6

Standard Electrical Specifications

NLD03 Wire Wound Power Inductors(Metal)

Codes	Inductance (μH)	Tolerance	DCR (Ω) ±20%	Test Freq. (MHz)	Isat (A)		Irms (A) Typ.
					Typ.	Max.	
1R0	1.0	M,N	0.16	1	1.9	1.5	1.8
2R2	2.2	M,N	0.24	1	1.5	1.2	1.4
4R7	4.7	M,N	0.50	1	1.0	0.8	0.9
100	10.0	M,N	1.05	1	0.7	0.56	0.63

Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method
Inductance	Refer to standard electrical characteristic spec.	E4982A + Agilent 16197A
Q		E4982A + Agilent 16197A
DC Resistance DCR		E4982A + Agilent 16197A
Isat		For Inductance drop 30% from its value without current
Irms		For a 40°C rise above 25°C ambient

Mechanical Performance Test

Item	Requirement	Test Method
Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150°C, 1min. Solder Composition: Sn96.5/Ag3.0/Cu0.5 Solder Temperature: 260±5°C Immersion Time: 10±1 seconds
Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min. Solder Composition: Sn96.5/Ag3.0/Cu0.5 Solder Temperature: 255±5°C Immersion Time: 4±1 seconds
Component Adhesion(Push Test)	1Lbs. For 0402 1Lbs. For 0603 2Lbs. For 0805 2Lbs. For 1008	The device should be Reflow soldered (255±5°C for 10 seconds) to a Tinned Copper Substrate. A force Gauge should be applied to the side of the component. The Device must withstand a minimum force of 1 or 2 Pounds without a failure of the termination attached to component.
Vibration	Appearance: No damage L,Q change: within Spec	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 hours for a total of 6 hours. Freq: 10 ~ 50 Hz Amplitude: 1.5 mm

Environmental Performance Test

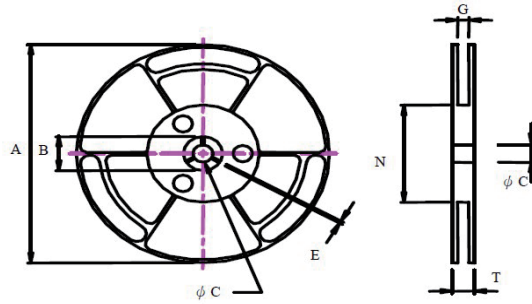
Item	Requirement	Test Method															
Temperature Cycle	Appearance: No damage L change: within Spec Q change: within Spec	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>105±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Time (min.)	1	-40±3	30	2	25±2	3	3	105±3	30	4	25±2	3
Step		Temperature (°C)	Time (min.)														
1		-40±3	30														
2		25±2	3														
3		105±3	30														
4	25±2	3															
Static Humidity	Temperature: 85±2°C Relative Humidity: 90 ~ 95% Time: 24 hrs Measured after exposure in the room condition for 2 hrs																
High Temperature Resistance	Temperature: 105±3°C Time: 48±12 hrs Measured after exposure in the room condition for 2 hrs																
Low Temperature Resistance	Temperature: -40±3°C Time: 48±12 hrs Measured after exposure in the room condition for 2 hrs																

■ Operating Temperature Range: -40~+105°C

■ Storage Temperature: 20~25°C; Humidity: <65%RH

■ Packaging

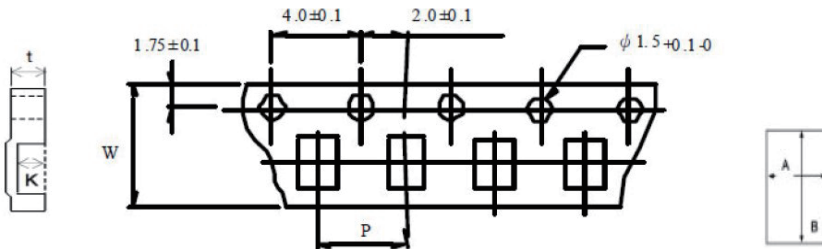
Packaging Quantity & Reel Specifications



Unit:mm

Type	A	B	C	E	G	N	T	Quantity (EA)
NLD02	178 max	21.0±0.8	13+0.5/-0.2	2.5+0.5/-1.0	8.4+2.0/-0	50 min	14.4 max	4000
NLD03	178±2.0	21.0±0.8	13±0.8	-	8.4±1.0	50 min	12.5 max	4000

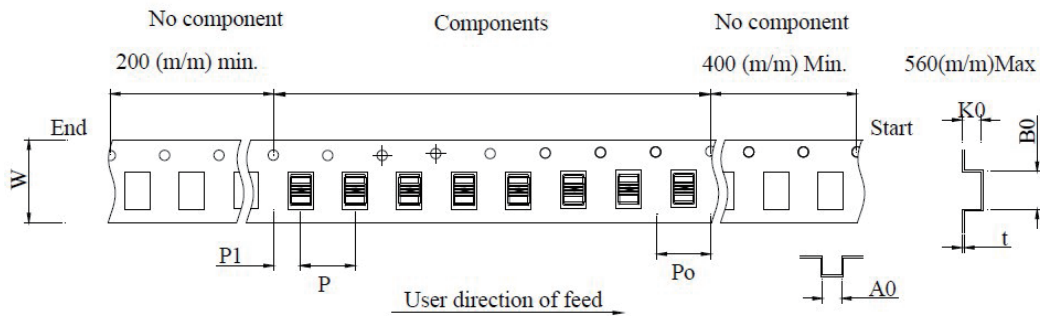
Paper Tape specifications



Unit:mm

Type	W	A	B	K	t	P
NLD02	8.00±0.20	0.80±0.03	1.30±0.03	0.67±0.03	0.75±0.03	2.00±0.10

Embossed Plastic Tape Specifications

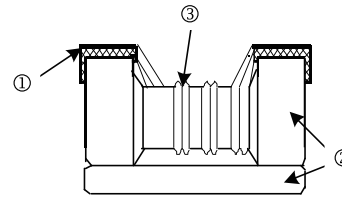


Unit:mm

Type	t	P1	P	P0	W	A0	B0	K0
NLD03	0.22±0.05	2.00±0.10	4.00±0.10	4.00±0.10	8.00±0.10	1.25±0.10	1.90±0.10	1.05±0.10

Chip Common Mode Filter – CM Series

Construction

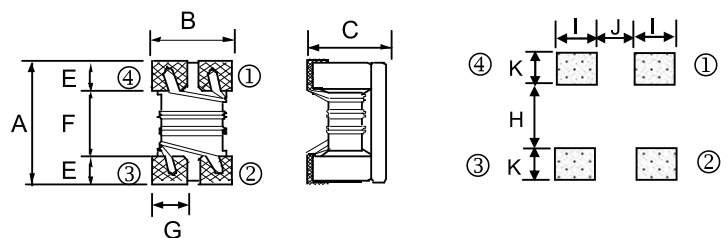


① Terminal	② Ferrite	③ Enamel-insulated Wire
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Features

- Small chip inductor with ferrite core and two line types wire wound
- Highly effective in noise suppression High common-mode impedance at noise band and low differential-mode impedance at signal band
- Low differential-mode impedance with high coupling factor. There is almost no distortion on high-speed signal.

Dimensions



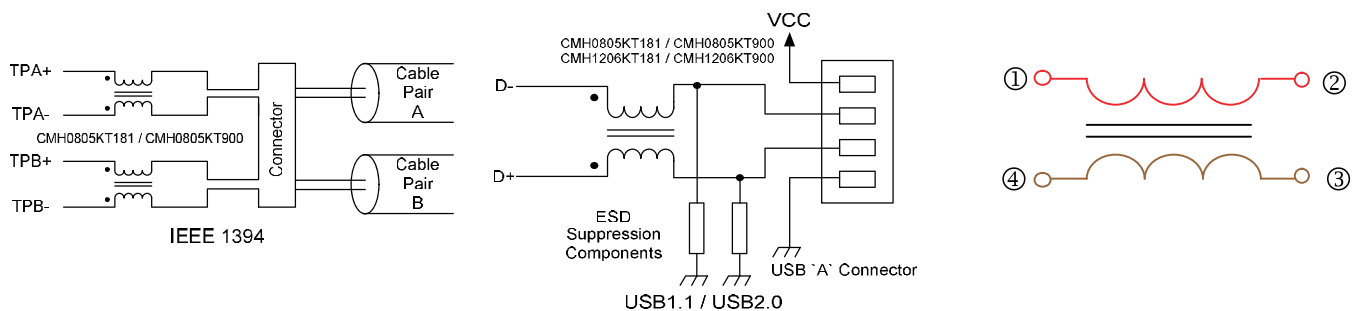
Applications

- EMI Radiation Noise Suppression for Any Electronic Device
- USB Line for Personal Computers and Peripheral
- IEEE 1394 Line for Personal Computers, DVC, STB
- LCD Panels. Low-Voltage Differential Signal (LVDS)

Unit: mm

Type	Size (Inch)	A	B	C	E	F	G	H	I	J	K	Weight (g) (1000pcs)
CMH05	0805	2.0±0.2	1.2±0.2	1.2±0.2	0.45	1.2	0.4	0.8	0.4	0.4	0.90	19
CMH06	1206	3.2±0.2	1.6±0.2	1.9±0.2	0.60	2.0	0.6	1.6	0.6	0.4	1.05	53.3

Equivalent Circuit



Part Numbering

CM	H	05	M	T	900
Product Type	Shielding Type H: Shielding	Dimensions 05: 0805 06: 1206	Impedance Tolerance M: ±20%	Packaging Code T: Taping Reel B: Bulk	Impedance 900: 90Ω 121: 120Ω 102: 1000Ω 222: 2200Ω

■ Standard Electrical Specifications

CMH05 / Standard Type

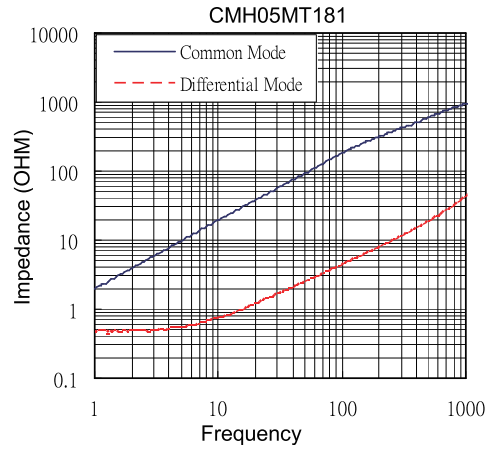
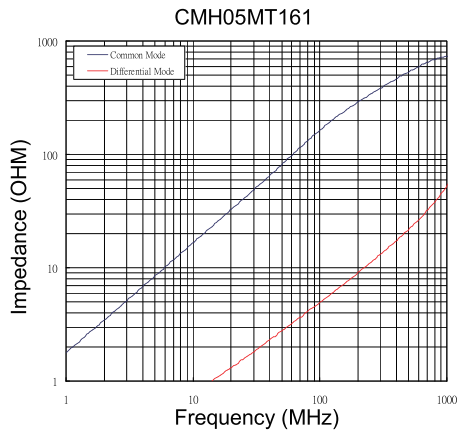
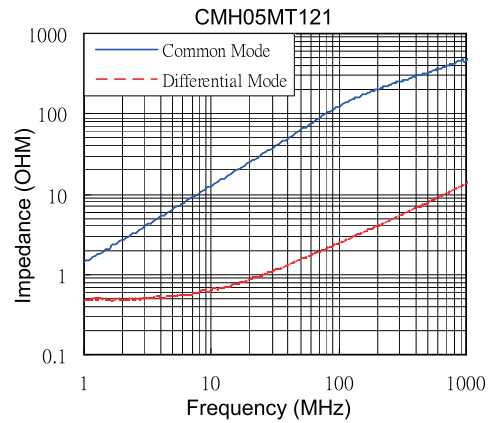
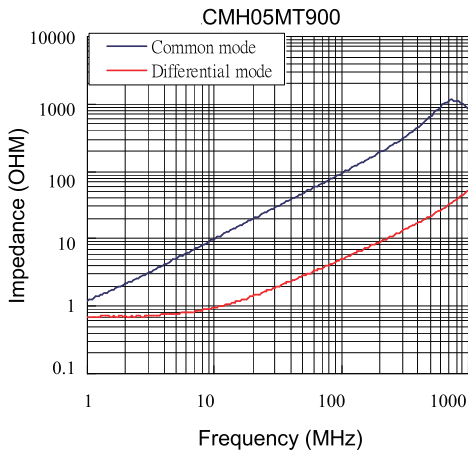
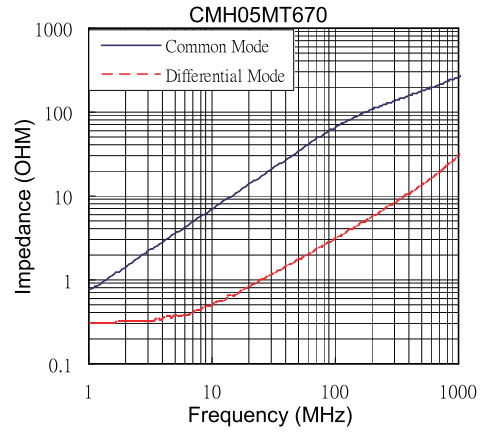
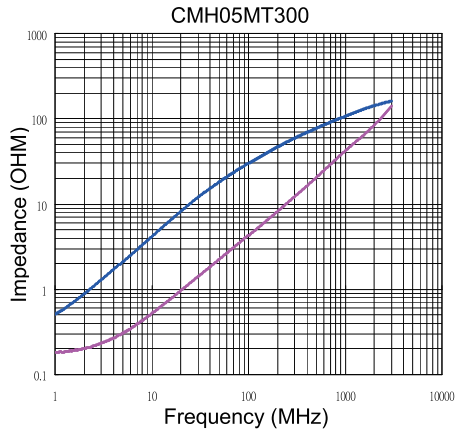
Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Insulation Resistance (MΩ) min.
30	±20%	100	0.20	450	50	125	10
67	±20%	100	0.25	400	50	125	10
90	±20%	100	0.35	400	50	125	10
120	±20%	100	0.30	400	50	125	10
160	±20%	100	0.35	400	50	125	10
180	±20%	100	0.35	350	50	125	10
200	±20%	100	0.35	350	50	125	10
220	±20%	100	0.35	350	50	125	10
260	±20%	100	0.40	300	50	125	10
360	±20%	100	0.40	280	50	125	10
370	±20%	100	0.40	280	50	125	10

CMH06 / Standard Type

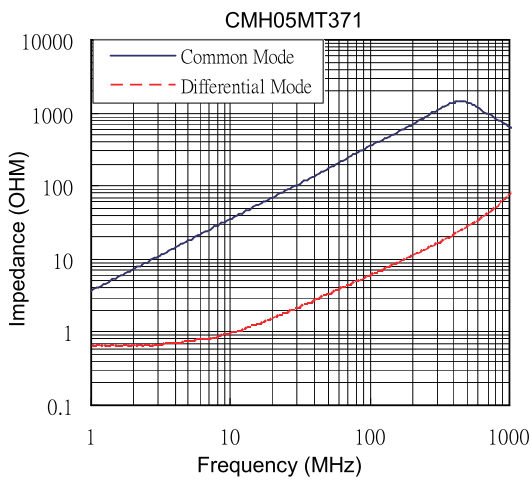
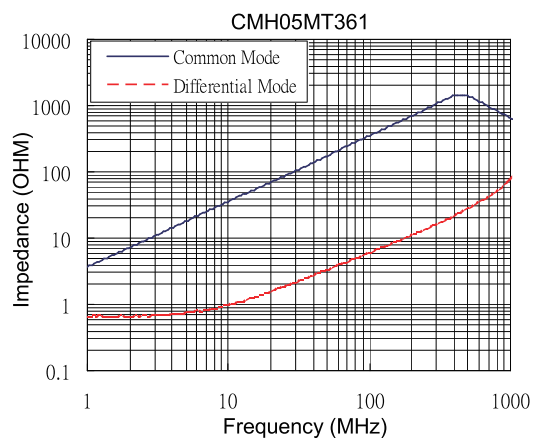
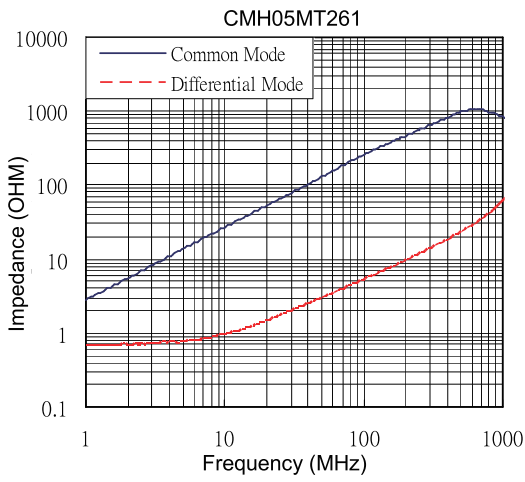
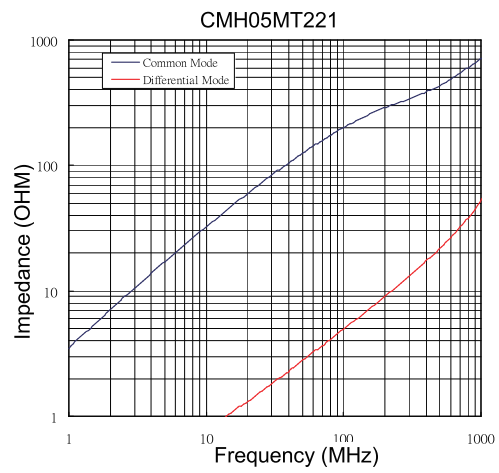
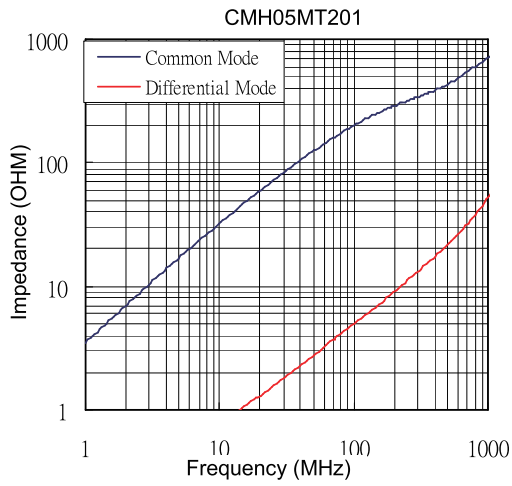
Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Insulation Resistance (MΩ) min.
90	±20%	100	0.30	370	50	125	10
120	±20%	100	0.30	370	50	125	10
160	±20%	100	0.40	340	50	125	10
260	±20%	100	0.50	310	50	125	10
600	±20%	100	0.80	260	50	125	10
1000	±20%	100	1.00	230	50	125	10
2200	±20%	100	1.20	200	50	125	10

■ All specifications are subject to change without notice

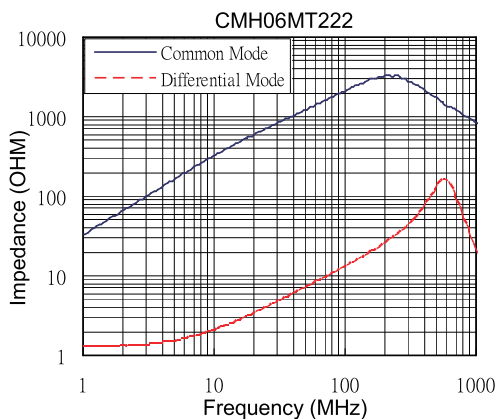
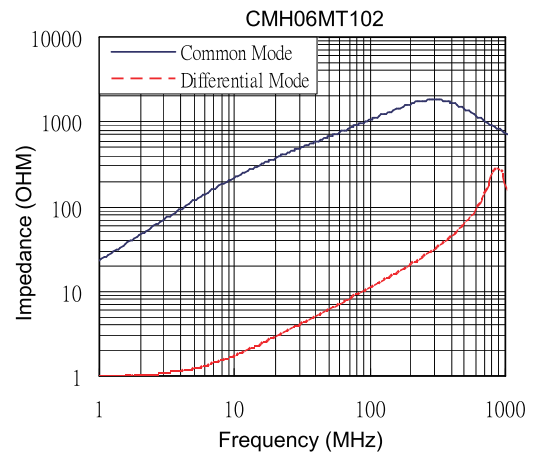
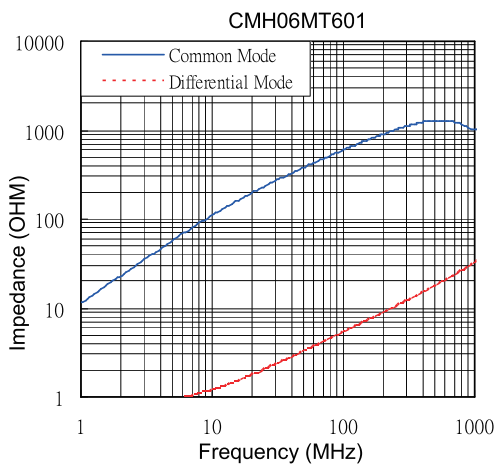
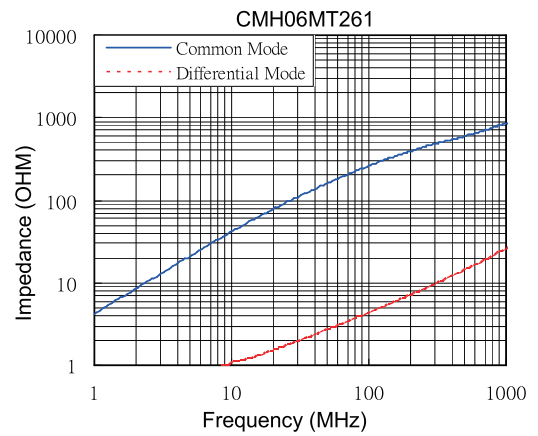
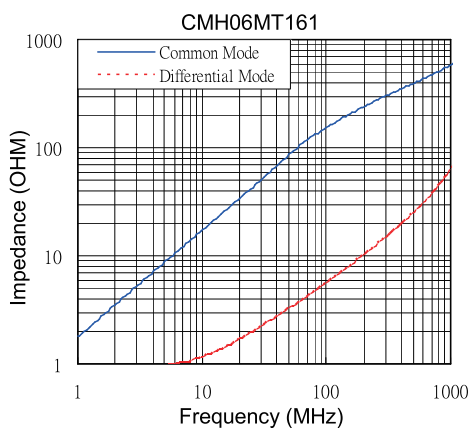
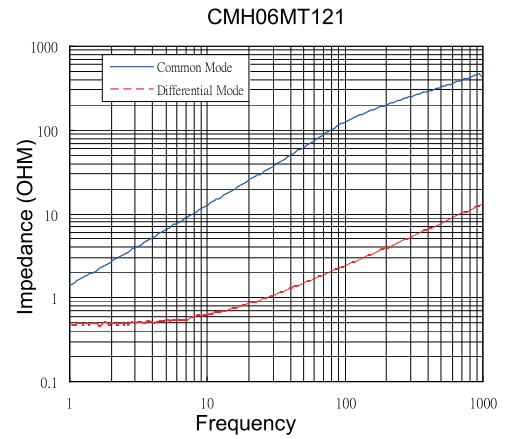
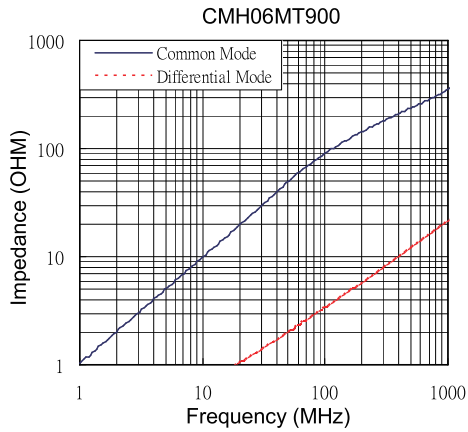
Characteristics (Impedance vs. Frequency)-CMH05



Characteristics (Impedance vs. Frequency)-CMH05



Characteristics (Impedance vs. Frequency)-CMH06



■ Environmental Characteristics

Electrical Performance Test

Items	Requirement	Test Conditions / Test Methods
Impedance	Refer to standard electrical characteristic spec. Component should not be damaged	LCR Meter HP 4291B
DC Resistance DCR		Micro-Ohm meter (GOM-801G)
Withstand Voltage (VDC)		Test Voltage: 2.5 Times Rated Voltage Testing Time: 60 seconds Charge Current: 0.5mA
Rated Voltage (VDC)		Test Voltage: Rated Voltage Testing Time: 1 to 5 seconds Charge Current: 1mA
Insulation Resistance (I.R)		Charge Current: 1minute 10M ohm min.

Mechanical Performance Test

Items	Requirement	Test Conditions / Test Methods
Component Adhesion (Push Test)	Base: 0805 \geq 2 Lbs Cover: 0805 \geq 1 Lbs Base: 1206 \geq 4 Lbs Cover: 1206 \geq 2 Lbs	The component should be soldered ($232^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 sec.) to tinned copper substrate Applied force gauge to the side of component It must withstand force of 2 or 4 pounds without failure of the component.
Drop	Component should not be damaged	Dropping chip by each side and corner. Drop 10 times in total Drop height: 100 cm Drop weight: 125 g
Solderability	The terminal should at least be 90% covered with solder	The component shall be dipped in a melted solder bath at $245 \pm 5^{\circ}\text{C}$ for 3 seconds
Vibration Test (Low Frequency)	Component should not be damaged	1. Amplitude: 1.5 m/m 2. Frequency: 10-55-10Hz (1min.) 3. Direction: X, Y, Z 4. Duration: 2 Hrs/X, Y, Z

Climatic Test

Items	Requirement	Test Conditions / Test Methods
Low Temperature Storage	Impedance change: Within $\pm 20\%$ Without distinct damage in appearance	1. Temp: $-40 \pm 2^{\circ}\text{C}$ 2. Time: 1000 ± 48 Hours 3. Component should be tested after 1hour at room temperature
Thermal Shock		<p>Total: 5 Cycles</p>
High Temperature Storage		1. Temp: $85 \pm 2^{\circ}\text{C}$ 2. Time: 1000 ± 48 Hours 3. Component should be tested after 1hour at room temperature
Humidity		1. Temp: $40 \pm 2^{\circ}\text{C}$ 2. R.H. : 90 ~ 95% 3. Time: 48 ± 2 Hours
High Temperature Load Life		1. Temp: $85 \pm 2^{\circ}\text{C}$ 2. Time: 96 ± 12 Hours 3. Load: Allowed DC Current
Low Temperature Load Life		1. Temp: $-40 \pm 2^{\circ}\text{C}$ 2. Time: 96 ± 12 Hours 3. Load: Allowed DC Current

■ Operating Temperature Range: $-40 \sim 125^{\circ}\text{C}$

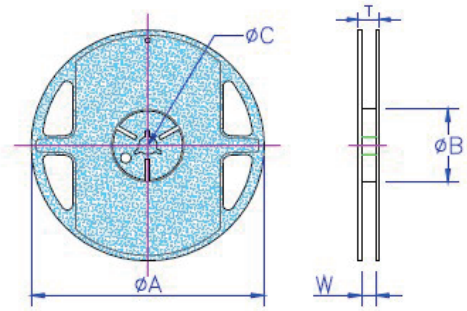
■ Storage Temperature: $<40^{\circ}\text{C}$; Humidity 60%RH

Packaging

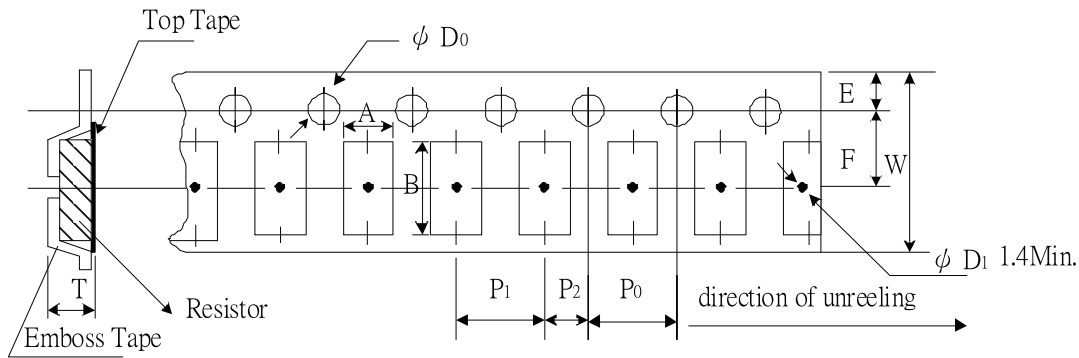
Packaging Quantity & Reel Specifications

Unit: mm

Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
CMH05	178±2.0	60±0.5	13±0.3	9±0.3	11.4±1.0	2000
CMH06	178±2.0	60±0.5	13±0.3	9±0.3	11.4±1.0	2000



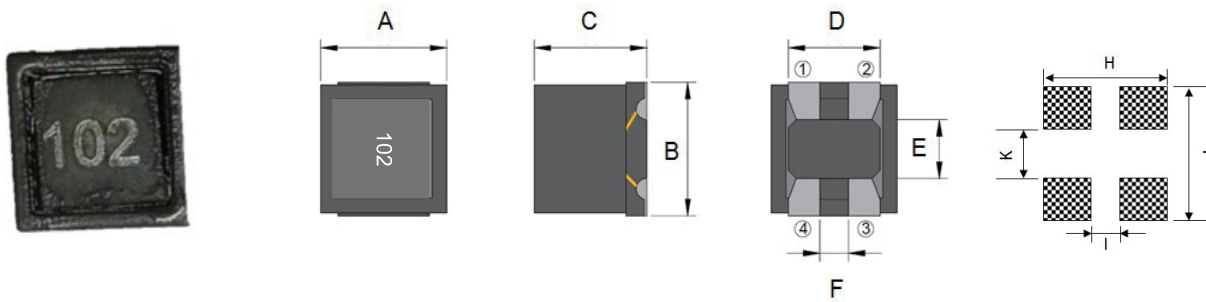
Embossed Plastic Tape Specifications



Unit: mm

Type	A	B	W	E	F	P0	P1	P2	ΦD_0	t
CMH05	1.40±0.10	2.55±0.05	8.0±0.20	1.75±0.10	3.5±0.10	4.00±0.10	4.00±0.10	2.00±0.10	1.50+0.10	1.35±0.10
CMH06	1.90±0.10	3.50±0.05	8.0±0.20	1.75±0.10	3.5±0.10	4.00±0.10	4.00±0.10	2.00±0.10	1.50+0.10	2.10±0.10

Chip Common Mode Filter – CMC Series



Dimensions

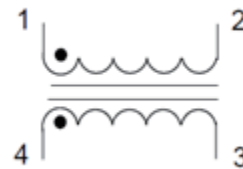
Unit: mm

Type	A	B	C	D	E	F	H	I	J	K
CMC0502	4.8±0.3	5.0±0.3	2.3±0.2	3.5±0.2	2.2±0.2	1.1±0.2	4.4	0.9	5.5	2.0

Features

- Chip common mode filter for large current applications
- For each series, there is excellent common mode impedance and noise suppression in a compact case
- Low profile and small size makes it optimal for surface mounting

Equivalent Circuit



Applications

- Power Line Noise Countermeasure For Electronic Equipment (DVCs, DVD Cams, DSCs, etc.).

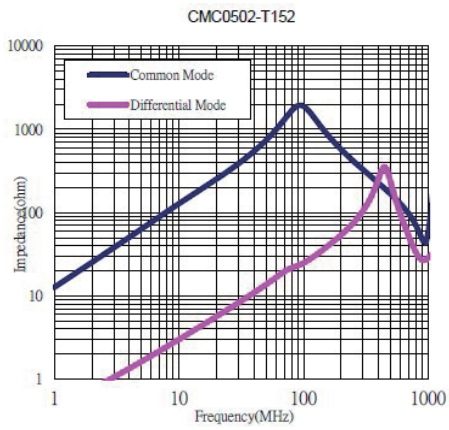
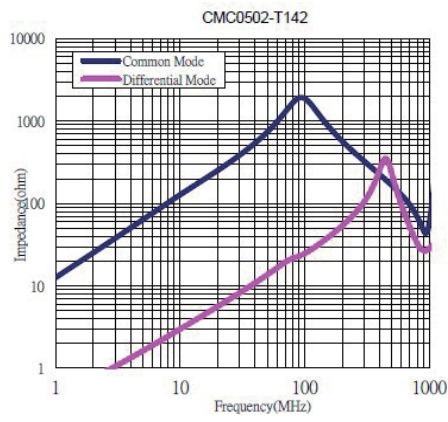
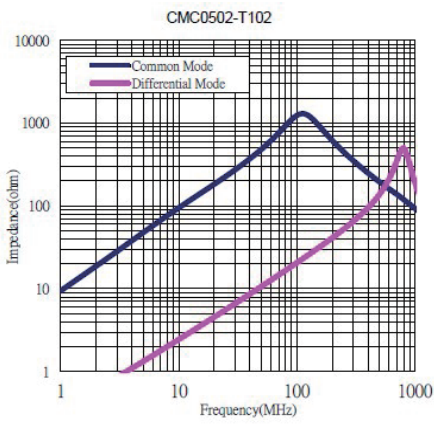
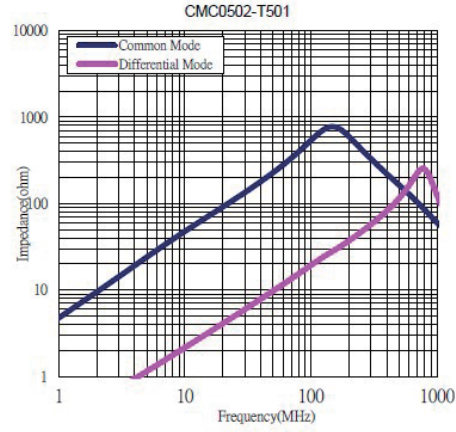
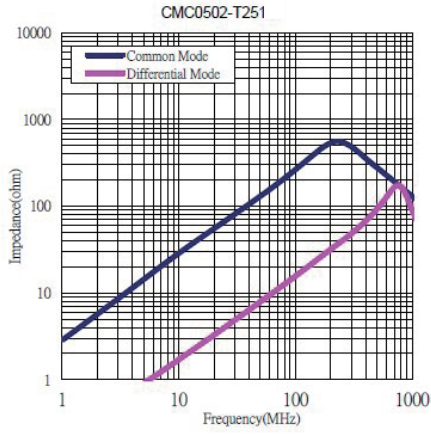
Part Numbering

CMC	0502	-	T	102
Product Type	Dimensions (AxBxC)	Impedance Tolerance	Packaging Code	Impedance
	0502: 4.8x5.0x2.3	-: No specified	T: Taping Reel	251: 250Ω 102: 1000Ω

Standard Electrical Specifications

Part No.	Impedance (Ω) tpy. @10MHz	Impedance (Ω) tpy. @100MHz	DCR (mΩ) ±40%	IDC (A) max.	Rated Voltage Vdc (V)	Insulation Resistance (MΩ) min.	Withstanding Voltage Vdc(V)
CMC0502-T251	20	250	14	5	50	10	125
CMC0502-T501	30	500	19	4	50	10	125
CMC0502-T102	60	1000	24	3	50	10	125
CMC0502-T142	100	1400	40	2	50	10	125
CMC0502-T152	100	1500	40	2	50	10	125

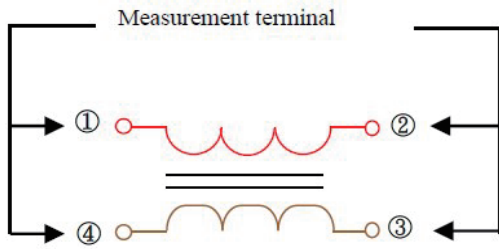
Characteristics (Impedance vs. Frequency)



■ Test Equipment

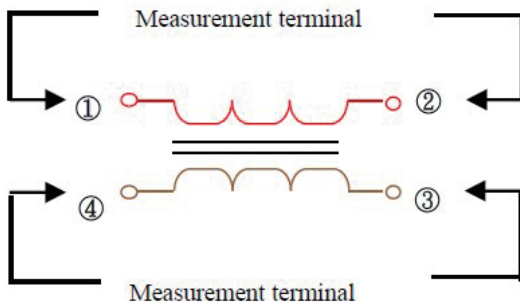
Impedance / Inductance

Measured by using Agilent E4991A RF Impedance Analyzer.
Measured by using Microtest 6377 RF LCR Meter



DC Resistance

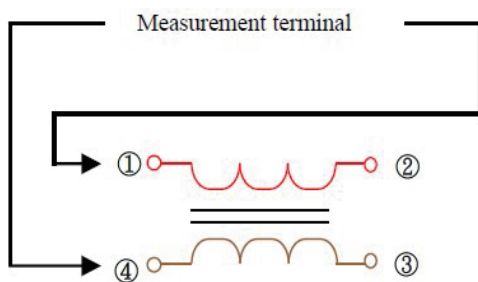
Measured by using Chroma 16502 mill ohm meter.



Insulation Resistance

Measured by using Chroma 19073

Measurement voltage : 50v , Measurement time : 60 sec



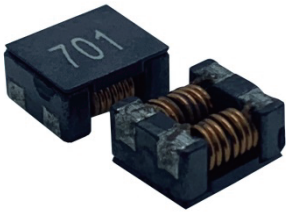
Environmental Characteristics

Items	Requirement	Test Conditions / Test Methods
Impedance	Refer to standard electrical characteristic spec. Component should not be damaged	Agilent-E4991B+ Agilent -16197A
DC Resistance DCR		Micro-Ohm meter (chroma 16502)
Insulation Resistance (I.R)		Charge Current: 1minute 10M ohm min
Component Adhesion (Push Test)	Base: 5050 \geq 4 Lbs	The component should be soldered (232 \pm 5 $^{\circ}$ C for 10 sec.) to tinned copper substrate. Applied force gauge to the side of component It must withstand force of 2 or 4 pounds without failure of the component.
Drop	Component should not be damaged	Dropping chip by each side and corner. Drop 10 times in total Drop height: 100 cm Drop weight: 125 g
Solderability	The terminal should at least be 90% covered with solder	The component shall be dipped in a melted solder bath at 245 \pm 5 $^{\circ}$ C for 3 seconds
Low Temperature Storage	Inductance change: Within \pm 10% of initial value Q : Shall not exceed the specification value. RDC : within \pm 15% of initial value and shall not exceed the specification value	Temperature: 40 \pm 2 $^{\circ}$ C Time: 1000 \pm 48 hours Component should be tested after 1hour at room temperature
High Temperature Storage		Temperature: 85 \pm 2 $^{\circ}$ C Time: 1000 \pm 48 hours Component should be tested after 1hour at room temperature
Thermal Shock		<p>Total: 5 Cycles</p>
Humidity		Temperature: 40 \pm 2 $^{\circ}$ C Humidity. : 90 ~ 95% Time: 48 \pm 2 hours

■ Operating temperature range: -25~125 $^{\circ}$ C

■ Storage Temperature: <40 $^{\circ}$ C; Humidity 60%RH

Chip Common Mode Filter—PCM Series



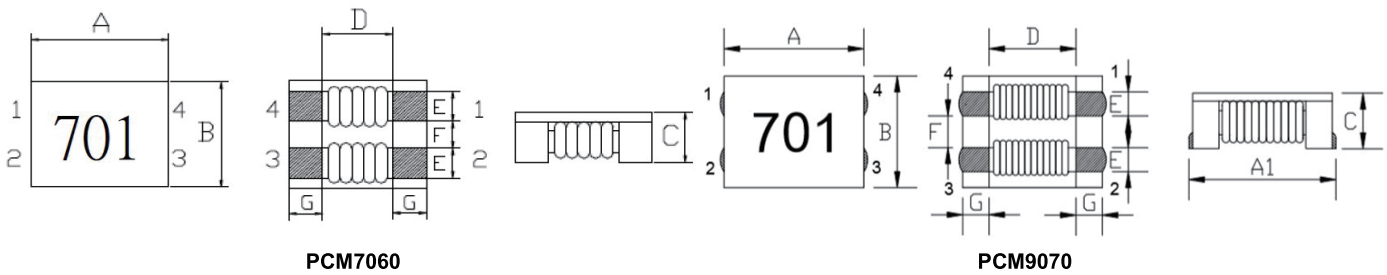
Features

- Compatible with high-density portable devices, which are always being made smaller and lighter, because the height has been reduced.

Applications

- Power Line Noise Countermeasure For Various Electronic Equipment
- Noise Countermeasure For Adapter Lines And Battery Lines Or Larger Electronic Equipment Such As Note Book PCs And Word Processors

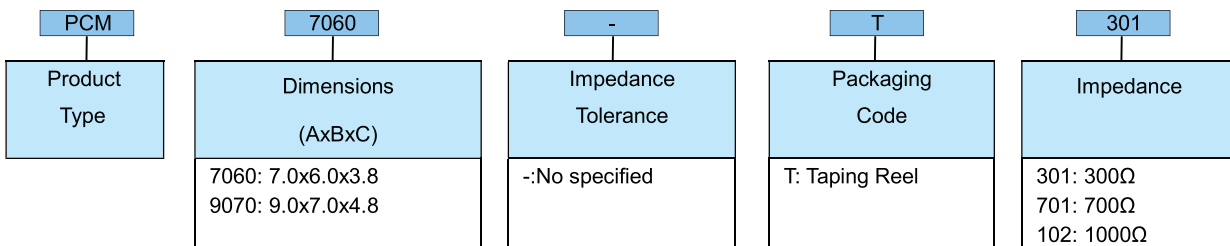
Dimensions



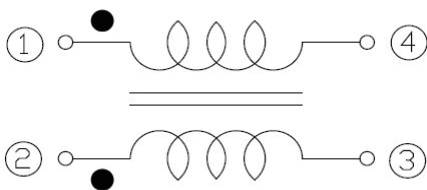
Unit : mm

Type	A	A1	B	C	D	E	F	G
PCM7060	7.00±0.50	-	6.00±0.20	3.80 max	3.50 typ	1.50±0.20	1.50±0.20	1.75±0.20
PCM9070	9.00±0.50	9.50±0.51	7.00±0.50	4.80 max	5.70 typ	1.50±0.20	2.00±0.20	1.70±0.20

Part Numbering



Equivalent Circuit



Electrical Specifications

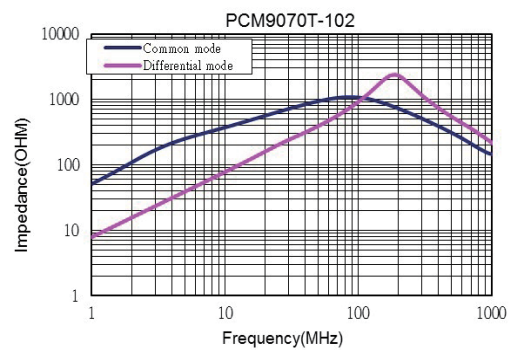
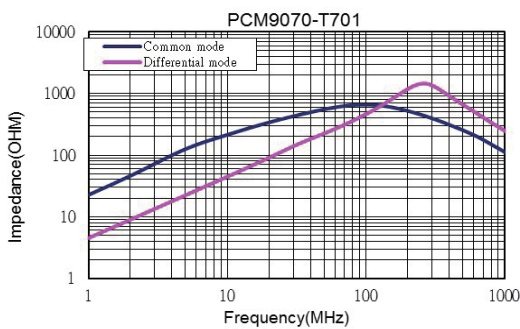
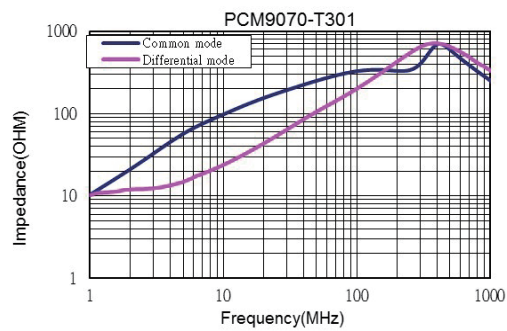
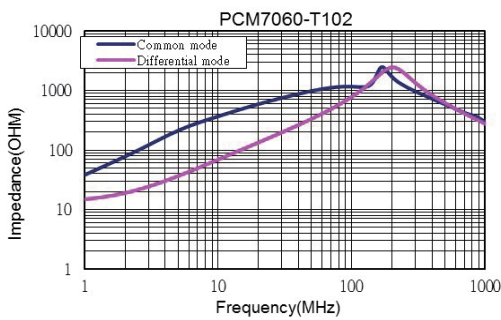
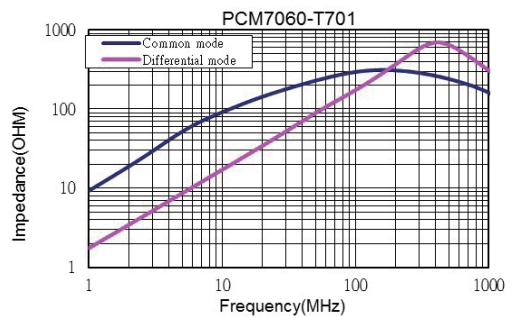
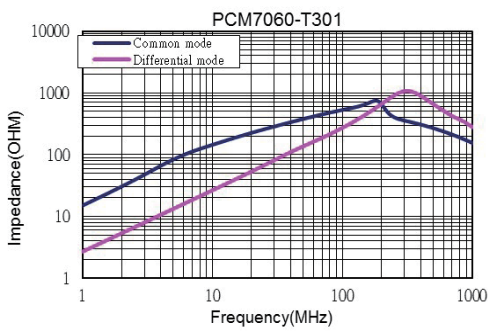
PCM7060 Type

Part No.	Impedance (Ω)		Test Condition (MHz)	DCR (Ω) max.	IDC (A) max.	Rated Voltage Vdc (V)	Insulation Resistance (M Ω) min.
	min.	typ.					
PCM7060-T301	225	300	100	10	5	125	10
PCM7060-T701	500	700	100	15	4	125	10
PCM7060-T102	800	1020	100	17	3	125	10

PCM9070 Type

Part No.	Impedance (Ω)		Test Condition (MHz)	DCR (Ω) max.	IDC (A) max.	Rated Voltage Vdc (V)	Insulation Resistance (M Ω) min.
	min.	typ.					
PCM9070-T301	225	300	100	6	6	80	10
PCM9070-T701	500	700	100	10	5	80	10
PCM9070-T102	750	1000	100	13	4	80	10

Characteristics

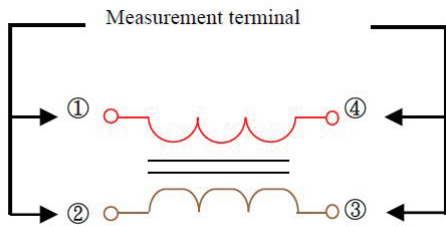


■ Test Equipment

Impedance / Inductance

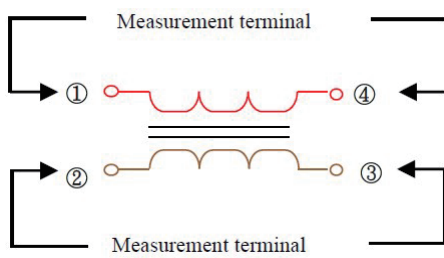
Measured by using Agilent E4991A RF Impedance Analyzer.

Measured by using Microtest 6377 LCR Meter.



DC Resistance

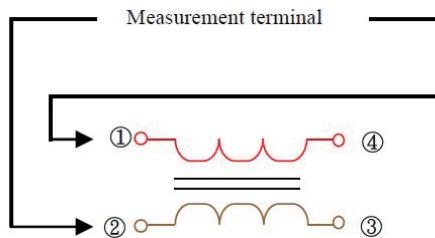
Measured by using Chroma 16502 mill ohm meter.



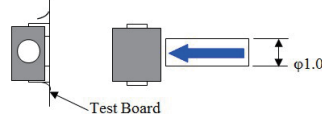
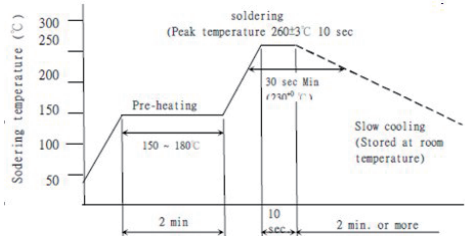
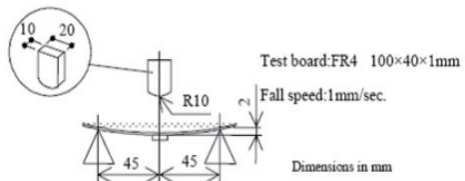
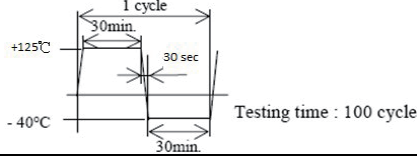
Insulation Resistance

Measured by using Chroma 19073

Measurement voltage : 50v ,Measurement time : 60 sec



Environmental Characteristics

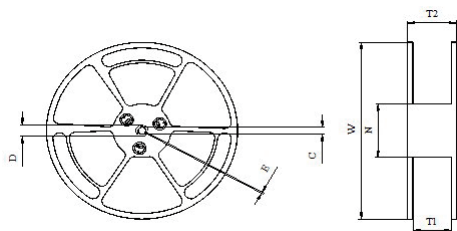
Items	Requirement	Test Conditions
Solderability	The product shall be connected to the test	Apply cream solder to the printed circuit board . circuit board by the fillet (the height is 0.2mm)
Terminal strength	The terminal electrode and the ferrite must not be damaged.	Solder a chip to test substrate , and then laterally apply a load 1.0Kg in the arrow direction. 
Resistance to Soldering heat (reflow soldering)	There shall be no damage or problems.	Temperature profile of reflow soldering  <p>The specimen shall be passed through the reflow oven with the condition shown in the above profile for 1 time. The specimen shall be stored at standard atmospheric eric conditions for 1 hour, after which the measurement shall be made.</p>
Strength on PC board bending	The terminal electrode and the ferrite must not be damaged.	Solder a chip to test substrate and then apply a load. 
Thermal shock		 <p>Testing time : 100 cycle</p>
High temperature resistance	Impedance: Within±20% of the initial value.	After the samples shall be soldered onto the test circuit board, the test shall be done. Measurement : After placing for 24 hours min. Temperature : +125±2°C Applied voltage : Rated voltage Applied current : Rated current Testing time : 500±12 hours
Humidity resistance	Insulation resistance and DC resistance on the specification shall be met. The terminal electrode and the ferrite must not be damaged.	After the samples shall be soldered onto the test circuit board, the test shall be done. Measurement : After placing for 24 hours min. Temperature : +60±2°C , Humidity : 90 to 95 %RH Applied voltage : Rated voltage Applied current : Rated current Testing time : 500±12 hours
Low temperature storage		After the samples shall be soldered onto the test circuit board, the test shall be done. Measurement : After placing for 24 hours min. Temperature : -40±2°C Testing time : 500±12 hours
Vibration		After the samples shall be soldered onto the test circuit board, the test shall be done. Frequency : 10 to 55 Hz
Solderability(for PCM7060)	New solder more than 75%	Flux (rosin, isoprophl alcohol) shall be coated over the whole of the sample before hard, the sample shall then be preheated for about 2 minutes in a temperature of 130~150°C and after it has been immersed to a depth of 1.5mm below for 3±0.2 seconds fully in molten solder with a temperature of 245±2°C. More than 75% of the electrode sections shall be covered with new solder smoothly when the sample is taken out of the solder bath.

Operating temperature range: -40~125°C

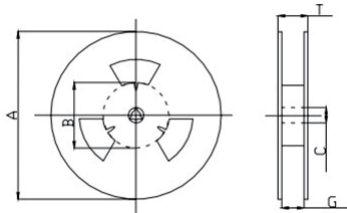
Storage Temperature: <40°C; Humidity 60%RH

■ Packaging

Packaging Quantity & Reel Specifications



PCM7060

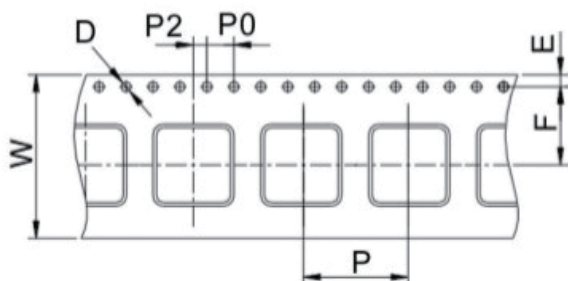


PCM9070

Unit: mm

Type	W	D	C	T1	N	T2	E	Quantity (EA)
PCM7060	330±1.5	21.5+0.5/-0	13+0.5/-0.2	12.5+0.5/-0	100±1.5	16.9±0.4	2.0±0.5	1500
PCM9070	330±1.5	21.5+0.5/-0	20.4+0.5/-0.2	24.5+0.5/-0	100±1.5	28.9±0.4	2.0±0.5	700

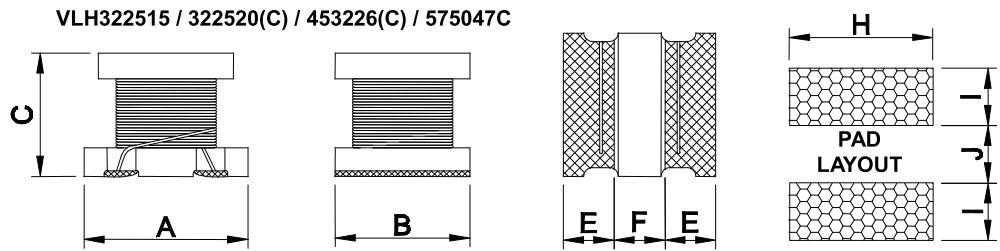
Embossed Plastic Tape Specifications



Unit: mm

Type	W	D	E	F	P	P0	P2
PCM7060	16±0.2	1.5	1.75±0.1	7.5±0.1	12	4±0.1	2±0.1
PCM9070	24±0.2	1.5	1.75±0.1	11.5±0.1	16	4±0.1	2.02±0.1

SMD Power Inductor – VLH



Dimensions

Unit: mm

Type	A	B	C	E	F	H	I	J
322515(C)	3.2±0.3	2.5±0.2	1.55±0.3	1.05±0.3	1.05±0.3	2.0	1.5	1.0
322520(C)	3.2±0.3	2.5±0.2	2.0±0.3	0.7min.	0.7min.	2.0	1.5	1.0
453226(C)	4.5±0.3	3.2±0.2	2.6±0.4	1.0min.	1.0min.	3.0	2.0	1.2
575047C	5.7±0.3	5.0±0.3	4.7±0.3	1.3min.	1.7min.	5.0	2.0	2.0

Features

- The miniature chip inductors is wound on a special ferrite core.
- VLH322515/322520/453226 are low DC resistance.
- VLH322520C/453226C/575047C are low DC resistance, high current capacity, and high impedance characteristics. They are excellent for using as a choke coil in DC power supply circuits.

Applications

- Pagers, Cordless Phone
- High Frequency Communication Products
- Personal Computers
- Disk Drives And Computer Peripherals
- DC Power Supply Circuits

Inductance and rated current ranges

–VLH322515	1.00~100μH	1.00~0.1A
–VLH322520	1.00~560μH	0.445~0.04A
–VLH453226	1.00~2200μH	0.50~0.078A
–VLH322515C	0.47~120μH	3.40~0.17A
–VLH322520C	1.00~560μH	1.00~0.06A
–VLH453226C	1.00~1000μH	1.08~0.05A
–VLH575047C	0.12~10000μH	6.00~0.05A

– Test equipment:

L&Q: HP4285A Precision LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

Characteristics for 322515(C)

- Rated DC Current(I sat): The current when the inductance becomes 30% typical its initial value (Ta=25°C)
- Temperature Rise Current(I rms): The actual current when the temperature of coil becomes ΔT40°C.. (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: -10~40°C; Humidity 25~80%RH

Characteristics for 322525/322520/453226/322520C/453226C/575047C

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value or the current when the temperature of coil increases ΔT20°C. The smaller one is defined as Rated DC Current. (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: -10~40°C; Humidity 25~80%RH

Product Identification

VLH	453226	C	-	101	K
Product Type	Dimensions (AxBxC)	Use	Appearance	Inductance	Inductance Tolerance
	322515: 3.2x2.5x1.55 322520: 3.2x2.5x2.0 453226: 4.5x3.2x2.6 575047: 5.7x5.0x4.7	C: Choke Use : General Use	- : Standard E: Epoxy	1R0: 1.0μH 470: 47μH 101: 100μH	K: ±10% M: ±20% N: ±30%

■ Offer shielded product by customer's requirement.

Electrical Characteristics

V LH322515- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.	SRF (MHz) min.
V LH322515-1R0N	1.0	±30%	1MHz, 0.1V	0.078	1.000	100
V LH322515-1R5N	1.5	±30%	1MHz, 0.1V	0.068	1.200	100
V LH322515-2R2M	2.2	±20%	1MHz, 0.1V	0.126	0.790	64
V LH322515-3R3M	3.3	±20%	1MHz, 0.1V	0.180	0.700	50
V LH322515-4R7M	4.7	±20%	1MHz, 0.1V	0.195	0.650	43
V LH322515-100K	10	±10%	1MHz, 0.1V	0.420	0.450	26
V LH322515-150K	15	±10%	1MHz, 0.1V	0.750	0.300	22
V LH322515-220K	22	±10%	1MHz, 0.1V	1.000	0.250	19
V LH322515-330K	33	±10%	1MHz, 0.1V	1.400	0.200	17
V LH322515-470K	47	±10%	1MHz, 0.1V	2.200	0.170	13
V LH322515-680K	68	±10%	1MHz, 0.1V	3.200	0.130	9
V LH322515-101K	100	±10%	1MHz, 0.1V	4.500	0.100	8

V LH322520- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
V LH322520-1R0M	1.0	±20%	1MHz, 0.1V	0.50	0.445
V LH322520-1R2M	1.2	±20%	1MHz, 0.1V	0.60	0.425
V LH322520-1R5□	1.5	±10%, ±20%	1MHz, 0.1V	0.60	0.400
V LH322520-1R8□	1.8	±10%, ±20%	1MHz, 0.1V	0.70	0.390
V LH322520-2R2□	2.2	±10%, ±20%	1MHz, 0.1V	0.80	0.370
V LH322520-2R7□	2.7	±10%, ±20%	1MHz, 0.1V	0.90	0.320
V LH322520-3R3□	3.3	±10%, ±20%	1MHz, 0.1V	1.00	0.300
V LH322520-3R9□	3.9	±10%, ±20%	1MHz, 0.1V	1.10	0.290
V LH322520-4R7□	4.7	±10%, ±20%	1MHz, 0.1V	1.20	0.270
V LH322520-5R6□	5.6	±10%, ±20%	1MHz, 0.1V	1.30	0.250
V LH322520-6R8□	6.8	±10%, ±20%	1MHz, 0.1V	1.50	0.240
V LH322520-8R2□	8.2	±10%, ±20%	1MHz, 0.1V	1.60	0.225
V LH322520-100K	10	±10%	1MHz, 0.1V	1.80	0.190
V LH322520-120K	12	±10%	1MHz, 0.1V	2.00	0.180
V LH322520-150K	15	±10%	1MHz, 0.1V	2.20	0.170
V LH322520-180K	18	±10%	1MHz, 0.1V	2.50	0.165
V LH322520-220K	22	±10%	1MHz, 0.1V	2.80	0.150
V LH322520-270K	27	±10%	1MHz, 0.1V	3.10	0.125
V LH322520-330K	33	±10%	1MHz, 0.1V	3.50	0.115
V LH322520-390K	39	±10%	1MHz, 0.1V	3.90	0.110
V LH322520-470K	47	±10%	1MHz, 0.1V	4.30	0.100
V LH322520-560K	56	±10%	1MHz, 0.1V	4.90	0.085
V LH322520-680K	68	±10%	1MHz, 0.1V	5.50	0.080
V LH322520-820K	82	±10%	1MHz, 0.1V	6.20	0.070
V LH322520-101K	100	±10%	1MHz, 0.1V	7.00	0.080
V LH322520-121K	120	±10%	1MHz, 0.1V	8.00	0.075
V LH322520-151K	150	±10%	1MHz, 0.1V	9.30	0.070
V LH322520-181K	180	±10%	1MHz, 0.1V	10.20	0.065
V LH322520-221K	220	±10%	1MHz, 0.1V	11.80	0.065
V LH322520-271K	270	±10%	1MHz, 0.1V	12.50	0.065
V LH322520-331K	330	±10%	1MHz, 0.1V	15.00	0.065
V LH322520-391K	390	±10%	1MHz, 0.1V	22.00	0.050
V LH322520-471K	470	±10%	1KHz, 0.1V	25.00	0.045
V LH322520-561K	560	±10%	1KHz, 0.1V	28.00	0.040

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

VLH453226- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
VLH453226-1R0M	1.0	±20%	1MHz, 0.1V	0.20	0.500
VLH453226-1R2M	1.2	±20%	1MHz, 0.1V	0.20	0.500
VLH453226-1R5M	1.5	±20%	1MHz, 0.1V	0.30	0.500
VLH453226-1R8M	1.8	±20%	1MHz, 0.1V	0.30	0.500
VLH453226-2R2M	2.2	±20%	1MHz, 0.1V	0.30	0.500
VLH453226-2R7M	2.7	±20%	1MHz, 0.1V	0.32	0.500
VLH453226-3R3M	3.3	±20%	1MHz, 0.1V	0.35	0.500
VLH453226-3R9M	3.9	±20%	1MHz, 0.1V	0.38	0.500
VLH453226-4R7□	4.7	±10%, ±20%	1MHz, 0.1V	0.40	0.500
VLH453226-5R6□	5.6	±10%, ±20%	1MHz, 0.1V	0.47	0.500
VLH453226-5R6M-1	5.6	±20%	1MHz, 0.25V	0.18	1.180
VLH453226-6R8□	6.8	±10%, ±20%	1MHz, 0.1V	0.50	0.450
VLH453226-8R2□	8.2	±10%, ±20%	1MHz, 0.1V	0.56	0.450
VLH453226-100K	10	±10%	1MHz, 0.1V	0.56	0.400
VLH453226-120K	12	±10%	1MHz, 0.1V	0.62	0.380
VLH453226-150K	15	±10%	1MHz, 0.1V	0.73	0.360
VLH453226-180K	18	±10%	1MHz, 0.1V	0.82	0.340
VLH453226-220K	22	±10%	1MHz, 0.1V	0.94	0.320
VLH453226-270K	27	±10%	1MHz, 0.1V	1.10	0.300
VLH453226-330K	33	±10%	1MHz, 0.1V	1.20	0.270
VLH453226-390K	39	±10%	1MHz, 0.1V	1.40	0.240
VLH453226-470K	47	±10%	1MHz, 0.1V	1.50	0.220
VLH453226-560K	56	±10%	1MHz, 0.1V	1.70	0.200
VLH453226-680K	68	±10%	1MHz, 0.1V	1.90	0.180
VLH453226-820K	82	±10%	1MHz, 0.1V	2.20	0.170
VLH453226-101K	100	±10%	1MHz, 0.1V	2.50	0.160
VLH453226-121K	120	±10%	1MHz, 0.1V	3.00	0.150
VLH453226-151K	150	±10%	1MHz, 0.1V	3.70	0.130
VLH453226-181K	180	±10%	1MHz, 0.1V	4.50	0.120
VLH453226-221K	220	±10%	1MHz, 0.1V	5.40	0.110
VLH453226-271K	270	±10%	1MHz, 0.1V	6.80	0.100
VLH453226-331K	330	±10%	1MHz, 0.1V	8.20	0.095
VLH453226-391K	390	±10%	1MHz, 0.1V	9.70	0.090
VLH453226-471K	470	±10%	1KHz, 0.1V	11.80	0.080
VLH453226-561K	560	±10%	1KHz, 0.1V	14.50	0.070
VLH453226-681K	680	±10%	1KHz, 0.1V	17.00	0.065
VLH453226-821K	820	±10%	1KHz, 0.1V	20.50	0.060
VLH453226-102K	1000	±10%	1KHz, 0.1V	25.00	0.050
VLH453226-122K	1200	±10%	1KHz, 0.1V	30.00	0.045
VLH453226-152K	1500	±10%	1KHz, 0.1V	37.00	0.040
VLH453226-152K-2	1500	±10%	1KHz, 0.1V	37.00	0.055
VLH453226-182K	1800	±10%	1KHz, 0.1V	45.00	0.035
VLH453226-222K	2200	±10%	1KHz, 0.1V	50.00	0.030
VLH453226-222K-1	2200	±10%	1KHz, 0.1V	47.00	0.078

Note: VLH453226-222K-1 The current when the inductance becomes 30% lower than its initial value.

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

VLH322515C- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±20%	Isat (A) max.	Irms (A) max.	SRF (MHz) min.
VLH322515C-R47□	0.47	±20%, ±30%	1MHz, 0.1V	0.030	3.40	2.55	100
VLH322515C-1R0□	1.0	±20%, ±30%	1MHz, 0.1V	0.045	2.30	2.05	100
VLH322515C-1R5□	1.5	±20%, ±30%	1MHz, 0.1V	0.057	1.75	1.75	70
VLH322515C-2R2□	2.2	±20%, ±30%	1MHz, 0.1V	0.076	1.55	1.60	70
VLH322515C-3R3□	3.3	±20%, ±30%	1MHz, 0.1V	0.120	1.25	1.20	50
VLH322515C-4R7□	4.7	±20%, ±30%	1MHz, 0.1V	0.180	1.00	1.00	40
VLH322515C-6R8□	6.8	±20%, ±30%	1MHz, 0.1V	0.240	0.85	0.85	40
VLH322515C-100□	10	±10%, ±20%	1MHz, 0.1V	0.380	0.75	0.70	30
VLH322515C-150□	15	±10%, ±20%	1MHz, 0.1V	0.570	0.60	0.52	20
VLH322515C-220□	22	±10%, ±20%	1MHz, 0.1V	0.810	0.50	0.45	20
VLH322515C-330□	33	±10%, ±20%	1MHz, 0.1V	1.150	0.38	0.39	13
VLH322515C-470□	47	±10%, ±20%	1MHz, 0.1V	1.780	0.33	0.31	11
VLH322515C-680□	68	±10%, ±20%	1MHz, 0.1V	2.280	0.28	0.275	11
VLH322515C-101□	100	±10%, ±20%	1MHz, 0.1V	2.700	0.18	0.250	8
VLH322515C-121□	120	±10%, ±20%	1MHz, 0.1V	4.380	0.17	0.200	8

VLH322520C- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
VLH322520C-1R0M	1.0	±20%	1MHz, 0.1V	0.078	1.000
VLH322520C-2R2M	2.2	±20%	1MHz, 0.1V	0.126	0.790
VLH322520C-3R3M	3.3	±20%	1MHz, 0.1V	0.165	0.500
VLH322520C-4R7M	4.7	±20%	1MHz, 0.1V	0.195	0.450
VLH322520C-4R7M-2	4.7	±20%	100KHz, 0.25V	0.195	0.650
VLH322520C-6R8M	6.8	±20%	1MHz, 0.1V	0.330	0.450
VLH322520C-100M	10	±20%	1MHz, 0.1V	0.572	0.300
VLH322520C-220□	22	±10%, ±20%	1MHz, 0.1V	0.923	0.250
VLH322520C-470□	47	±10%, ±20%	1MHz, 0.1V	1.690	0.170
VLH322520C-101K	100	±10%	1MHz, 0.1V	4.550	0.100
VLH322520C-121K	120	±10%	1MHz, 0.1V	7.000	0.180
VLH322520C-151K	150	±10%	1MHz, 0.1V	9.100	0.080
VLH322520C-221K	220	±10%	1MHz, 0.1V	10.92	0.070
VLH322520C-331K	330	±10%	1MHz, 0.1V	13.00	0.060
VLH322520C-391K	390	±10%	1MHz, 0.1V	22.10	0.060
VLH322520C-471K	470	±10%	1MHz, 0.1V	24.70	0.060
VLH322520C-561K	560	±10%	1MHz, 0.1V	28.60	0.060

VLH453226C- Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
VLH453226C-1R0M	1.0	±20%	1MHz, 0.1V	0.08	1.080
VLH453226C-1R5M	1.5	±20%	1MHz, 0.1V	0.09	1.000
VLH453226C-2R2M	2.2	±20%	1MHz, 0.1V	0.11	0.900
VLH453226C-3R3M	3.3	±20%	1MHz, 0.1V	0.13	0.800
VLH453226C-4R7□	4.7	±10%, ±20%	1MHz, 0.1V	0.15	0.750
VLH453226C-6R8□	6.8	±10%, ±20%	1MHz, 0.1V	0.20	0.720
VLH453226C-100K	10	±10%	1MHz, 0.1V	0.24	0.650
VLH453226C-150K	15	±10%	1MHz, 0.1V	0.32	0.570
VLH453226C-220K	22	±10%	1MHz, 0.1V	0.60	0.420
VLH453226C-330K	33	±10%	1MHz, 0.1V	1.00	0.310
VLH453226C-470K	47	±10%	1MHz, 0.1V	1.10	0.280
VLH453226C-680K	68	±10%	1MHz, 0.1V	1.70	0.220
VLH453226C-101K	100	±10%	1MHz, 0.1V	2.20	0.190
VLH453226C-151K	150	±10%	1MHz, 0.1V	3.50	0.130
VLH453226C-221K	220	±10%	1MHz, 0.1V	4.00	0.110
VLH453226C-331K	330	±10%	1MHz, 0.1V	6.80	0.100
VLH453226C-471K	470	±10%	1KHz, 0.1V	8.50	0.090
VLH453226C-102K	1000	±10%	1KHz, 0.1V	25.00	0.050

■ Viking is capable to design according to customer special requirement

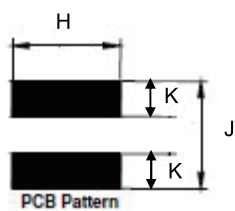
■ Electrical Characteristics

VLH575047C- Type

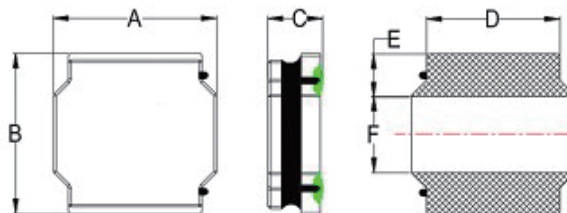
Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
VLH575047C-R12M	0.12	$\pm 20\%$	1MHz, 0.1V	0.0098	6.000
VLH575047C-R27M	0.27	$\pm 20\%$	1MHz, 0.1V	0.0140	5.300
VLH575047C-R47M	0.47	$\pm 20\%$	1MHz, 0.1V	0.0182	4.800
VLH575047C-1R0M	1.0	$\pm 20\%$	1MHz, 0.1V	0.0270	4.000
VLH575047C-1R5M	1.5	$\pm 20\%$	1MHz, 0.1V	0.0310	3.700
VLH575047C-2R2M	2.2	$\pm 20\%$	1MHz, 0.1V	0.0410	3.200
VLH575047C-3R3M	3.3	$\pm 20\%$	1MHz, 0.1V	0.0500	2.900
VLH575047C-4R7M	4.7	$\pm 20\%$	1MHz, 0.1V	0.0574	2.700
VLH575047C-6R8M	6.8	$\pm 20\%$	1MHz, 0.1V	0.1040	2.000
VLH575047C-100□	10	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.1300	1.700
VLH575047C-100K-1	10	$\pm 10\%$	1MHz, 0.25V	0.1300	2.000
VLH575047C-150□	15	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.210	1.400
VLH575047C-220□	22	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.266	1.200
VLH575047C-270□	27	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.300	1.000
VLH575047C-330□	33	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.448	0.900
VLH575047C-470□	47	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.560	0.800
VLH575047C-680□	68	$\pm 10\%$, $\pm 20\%$	1MHz, 0.1V	0.938	0.640
VLH575047C-101□	100	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	1.204	0.560
VLH575047C-151□	150	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	2.660	0.420
VLH575047C-221□	220	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	3.360	0.320
VLH575047C-331□	330	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	6.160	0.270
VLH575047C-471□	470	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	7.560	0.240
VLH575047C-681□	680	$\pm 10\%$, $\pm 20\%$	100KHz, 0.1V	11.34	0.190
VLH575047C-102□	1000	$\pm 10\%$, $\pm 20\%$	10KHz, 0.1V	14.42	0.150
VLH575047C-222□	2200	$\pm 10\%$, $\pm 20\%$	10KHz, 0.1V	30.10	0.100
VLH575047C-472□	4700	$\pm 10\%$, $\pm 20\%$	10KHz, 0.1V	61.04	0.070
VLH575047C-472M-1	4700	$\pm 20\%$	100KHz, 0.25V	61.00	0.090
VLH575047C-103□	10000	$\pm 10\%$, $\pm 20\%$	10KHz, 0.1V	140.0	0.050

■ Viking is capable to design according to customer special requirement

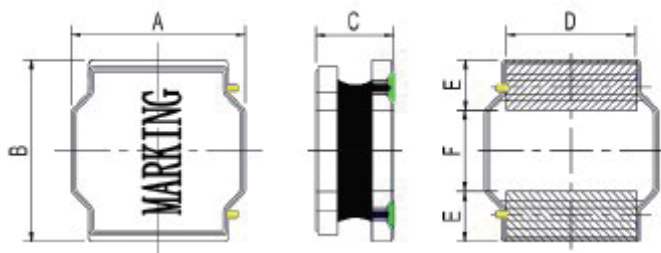
SMD Power Inductor – SDIA



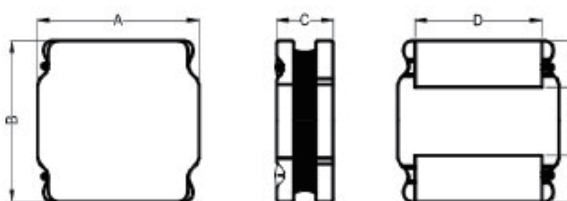
SDIA0310



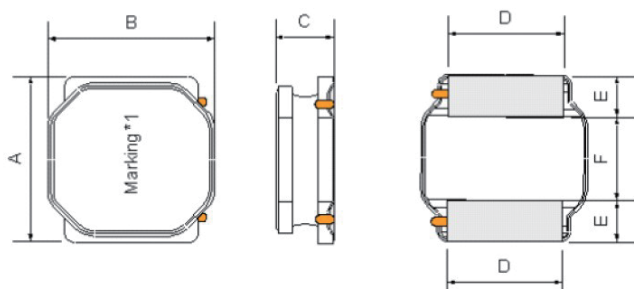
SDIA0418 / 0420 / 0520



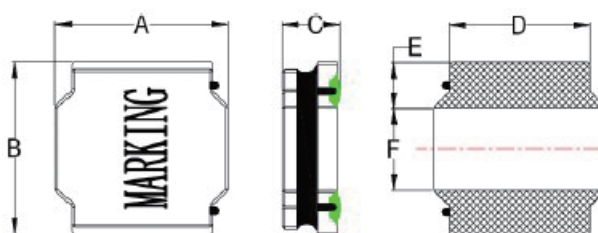
SDIA0312 / 0315



SDIA0410 / 0412 / 0415 / 0540 / 0645



SDIA0430 / 0620 / 0628 / 0840 / 0865



■ Dimensions

Unit: mm

Type	A	B	C	D	E	F	H	J	K
SDIA0310	3.0±0.2	3.0±0.2	1.0 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0312	3.0±0.2	3.0±0.2	1.2 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0315	3.0±0.2	3.0±0.2	1.5 max	2.5±0.2	0.75±0.2	1.5±0.2	2.7	3.0	0.8
SDIA0410	4.0±0.2	4.0±0.2	1.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0412	4.0±0.2	4.0±0.2	1.2 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0415	4.0±0.2	4.0±0.2	1.65 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0418	4.0±0.2	4.0±0.2	1.85 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0420	4.0±0.2	4.0±0.2	2.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0430	4.0±0.2	4.0±0.2	3.0 max	3.3±0.2	0.95±0.2	2.1±0.2	3.7	4.0	1.2
SDIA0520	5.0±0.2	5.0±0.2	2.0 max	4.0±0.2	1.25±0.2	2.5±0.2	4.7	5.0	1.5
SDIA0540	5.0±0.2	5.0±0.2	4.0 max	4.0±0.2	1.25±0.2	2.5±0.2	4.7	5.0	1.5
SDIA0620	6.0±0.3	6.0±0.3	2.0 max	4.9±0.2	1.55±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0628	6.0±0.3	6.0±0.3	2.8 max	4.9±0.2	1.7±0.3	2.9±0.3	5.7	6.3	1.6
SDIA0645	6.0±0.3	6.0±0.3	4.5 max	4.9±0.2	1.55±0.2	2.9±0.3	5.7	6.3	1.6
SDIA0840	8.0±0.3	8.0±0.3	4.2 max	6.3±0.3	2.2±0.3	4.0±0.3	7.5	8.2	2.2
SDIA0865	8.0±0.3	8.0±0.3	6.8 max	6.3 ref	2.45 ref	3.1 ref	6.6	8.3	2.75

■ Features

- Small and Low profile inductor
- It corresponds to high current
- Shield structure magnetically
- Strong structure against a shock-proof

■ Applications

- LCD Display etc
- For Small DC to DC Converters
- PDA

■ Characteristics

- Rated DC Current : The current when the inductance becomes 30% lower than its initial value.
- Operating temperature range: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

■ Inductance and rated current ranges

–SDIA0310	1.0~47μH	1.40~0.22A
–SDIA0312	1.0~47μH	1.87~0.27A
–SDIA0315	1.0~47μH	2.10~0.32A
–SDIA0410	1.0~22μH	2.00~0.45A
–SDIA0412	1.0~47μH	2.61~0.30A
–SDIA0415	1.0~22μH	2.50~0.68A
–SDIA0418	1.0~100μH	4.00~0.40A
–SDIA0420	1.0~47μH	4.78~0.74A
–SDIA0430	1.0~100μH	5.26~0.60A
–SDIA0520	1.0~47μH	4.33~0.81A
–SDIA0540	1.0~100μH	7.35~0.75A
–SDIA0620	1.0~47μH	4.30~1.00A
–SDIA0628	1.0~100μH	6.70~0.65A
–SDIA0645	2.2~220μH	6.00~0.80A
–SDIA0840	1.4~680μH	10.0~0.30A
–SDIA0865	4.7~6800μH	8.50~0.24A

- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

■ Product Identification

SDIA	0312	N	T	101
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0310: 3.0x1.0 0312: 3.0x1.2 0315: 3.0x1.5 0410: 4.0x1.0 0412: 4.0x1.2 0415: 4.0x1.65 0418: 4.0x1.85 0420: 4.0x2.0 0430: 4.0x3.0 0520: 5.0x2.0 0540: 5.0x4.0 0620: 6.0x2.0 0628: 6.0x2.8 0645: 6.0x4.5 0840: 8.0x4.2 0865: 8.5x6.8	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

Electrical Characteristics

SDIA0310 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0310NT1R0	1.0	±30%	100KHz, 0.25V	0.065	1.40	1.45
SDIA0310NT1R5	1.5	±30%	100KHz, 0.25V	0.080	1.27	1.30
SDIA0310NT2R2	2.2	±30%	100KHz, 0.25V	0.110	1.15	1.09
SDIA0310NT3R3	3.3	±30%	100KHz, 0.25V	0.145	0.97	0.96
SDIA0310□T4R7	4.7	±20%, ±30%	100KHz, 0.25V	0.225	0.75	0.77
SDIA0310□T6R8	6.8	±20%, ±30%	100KHz, 0.25V	0.305	0.55	0.66
SDIA0310□T100	10	±20%, ±30%	1KHz, 0.25V	0.400	0.55	0.58
SDIA0310□T150	15	±20%, ±30%	1KHz, 0.25V	0.610	0.42	0.47
SDIA0310□T220	22	±20%, ±30%	1KHz, 0.25V	0.930	0.35	0.38
SDIA0310□T330	33	±20%, ±30%	1KHz, 0.25V	1.550	0.29	0.30
SDIA0310□T470	47	±20%, ±30%	1KHz, 0.25V	1.950	0.22	0.26

SDIA0312 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0312NT1R0	1.0	±30%	100KHz, 0.25V	0.040	1.87	2.20
SDIA0312NT1R5	1.5	±30%	100KHz, 0.25V	0.045	1.62	2.01
SDIA0312NT2R2	2.2	±30%	100KHz, 0.25V	0.075	1.20	1.55
SDIA0312□T3R3	3.3	±20%, ±30%	100KHz, 0.25V	0.100	1.05	1.36
SDIA0312□T4R7	4.7	±20%, ±30%	100KHz, 0.25V	0.120	0.90	1.24
SDIA0312□T6R8	6.8	±20%, ±30%	100KHz, 0.25V	0.190	0.75	0.98
SDIA0312□T100	10	±20%, ±30%	1KHz, 0.25V	0.265	0.60	0.83
SDIA0312□T150	15	±20%, ±30%	1KHz, 0.25V	0.360	0.45	0.73
SDIA0312□T220	22	±20%, ±30%	1KHz, 0.25V	0.645	0.42	0.53
SDIA0312□T330	33	±20%, ±30%	1KHz, 0.25V	0.875	0.36	0.46
SDIA0312□T470	47	±20%, ±30%	1KHz, 0.25V	1.450	0.27	0.35

SDIA0315 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0315NT1R0	1.0	±30%	100KHz, 0.25V	0.037	2.10	1.90
SDIA0315NT1R5	1.5	±30%	100KHz, 0.25V	0.050	1.80	1.70
SDIA0315□T2R2	2.2	±20%, ±30%	100KHz, 0.25V	0.060	1.60	1.45
SDIA0315□T3R3	3.3	±20%, ±30%	100KHz, 0.25V	0.080	1.32	1.20
SDIA0315□T4R7	4.7	±20%, ±30%	100KHz, 0.25V	0.125	1.10	1.08
SDIA0315□T6R8	6.8	±20%, ±30%	100KHz, 0.25V	0.200	0.87	0.85
SDIA0315□T100	10	±20%, ±30%	1KHz, 0.25V	0.250	0.72	0.70
SDIA0315MT100-2	10	±20%	100KHz, 0.25V	0.230	0.72	0.70
SDIA0315□T150	15	±20%, ±30%	1KHz, 0.25V	0.350	0.65	0.64
SDIA0315□T220	22	±20%, ±30%	1KHz, 0.25V	0.460	0.52	0.57
SDIA0315□T330	33	±20%, ±30%	1KHz, 0.25V	0.780	0.42	0.35
SDIA0315□T470	47	±20%, ±30%	1KHz, 0.25V	1.200	0.32	0.30

Note: SDIA0315MT100-2 The current when the inductance becomes 35% lower than its initial value.

SDIA0410 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0410NT1R0	1.0	±30%	100KHz, 0.25V	0.056	2.00	1.90
SDIA0410NT1R5	1.5	±30%	100KHz, 0.25V	0.070	1.68	1.70
SDIA0410□T2R2	2.2	±20%, ±30%	100KHz, 0.25V	0.085	1.20	1.50
SDIA0410□T3R3	3.3	±20%, ±30%	100KHz, 0.25V	0.100	1.10	1.40
SDIA0410□T4R7	4.7	±20%, ±30%	100KHz, 0.25V	0.140	0.95	1.20
SDIA0410□T6R8	6.8	±20%, ±30%	100KHz, 0.25V	0.200	0.80	1.00
SDIA0410□T100	10	±20%, ±30%	1KHz, 0.25V	0.300	0.62	0.75
SDIA0410□T220	22	±20%, ±30%	1KHz, 0.25V	0.570	0.45	0.50

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Electrical Characteristics

SDIA0412 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	Isat (A) max.	Irms (A) max.
SDIA0412NT1R0	1.0	±30%	100KHz, 0.25V	0.050	2.61	1.65
SDIA0412NT1R5	1.5	±30%	100KHz, 0.25V	0.065	2.10	1.46
SDIA0412□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.080	1.76	1.32
SDIA0412□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.110	1.72	1.12
SDIA0412□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.125	1.15	1.05
SDIA0412□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.198	0.85	0.84
SDIA0412□T100	10	±20% , ±30%	1KHz, 0.25V	0.265	0.80	0.77
SDIA0412□T150	15	±20% , ±30%	1KHz, 0.25V	0.340	0.56	0.64
SDIA0412□T220	22	±20% , ±30%	1KHz, 0.25V	0.587	0.46	0.49
SDIA0412MT470-1	47	±20%	100KHz, 1V	1.104±20%	0.30	0.32

SDIA0415 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	Isat (A) max.	Irms (A) max.
SDIA0415NT1R0	1.0	±30%	100KHz, 0.25V	0.035	2.50	1.80
SDIA0415NT1R5	1.5	±30%	100KHz, 0.25V	0.040	2.20	1.60
SDIA0415□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.053	2.00	1.40
SDIA0415□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.075	1.80	1.20
SDIA0415□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.100	1.35	0.95
SDIA0415□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.135	1.20	0.80
SDIA0415□T100	10	±20% , ±30%	1KHz, 0.25V	0.200	1.00	0.65
SDIA0415□T150	15	±20% , ±30%	1KHz, 0.25V	0.300	0.85	0.50
SDIA0415□T220	22	±20% , ±30%	1KHz, 0.25V	0.400	0.68	0.40

SDIA0418 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	Isat (A) max.	Irms (A) max.
SDIA0418NT1R0	1.0	±30%	100KHz, 0.25V	0.023	4.00	2.00
SDIA0418NT1R5	1.5	±30%	100KHz, 0.25V	0.033	3.35	1.80
SDIA0418□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.042	3.00	1.75
SDIA0418□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.070	2.45	1.23
SDIA0418□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.090	2.00	1.20
SDIA0418□T5R6	5.6	±20% , ±30%	100KHz, 0.25V	0.103	1.60	1.15
SDIA0418□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.124	1.60	1.06
SDIA0418□T100	10	±20% , ±30%	1KHz, 0.25V	0.200	1.30	0.90
SDIA0418□T150	15	±20% , ±30%	1KHz, 0.25V	0.268	1.10	0.65
SDIA0418□T220	22	±20% , ±30%	1KHz, 0.25V	0.390	0.80	0.59
SDIA0418□T330	33	±20% , ±30%	1KHz, 0.25V	0.560	0.65	0.55
SDIA0418□T470	47	±20% , ±30%	1KHz, 0.25V	0.850	0.60	0.42
SDIA0418□T680	68	±20% , ±30%	1KHz, 0.25V	1.000	0.52	0.32
SDIA0418□T101	100	±20% , ±30%	1KHz, 0.25V	1.500	0.40	0.25
SDIA0418MT101-1	100	±20%	100KHz, 1V	1.750	0.40	0.25

Note: SDIA0418MT101-1 The current when the inductance becomes 35% lower than its initial value.

SDIA0420 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	Isat (A) max.	Irms (A) max.
SDIA0420NT1R0	1.0	±30%	100KHz, 0.25V	0.029	4.78	2.15
SDIA0420NT1R5	1.5	±30%	100KHz, 0.25V	0.035	4.45	1.98
SDIA0420□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.040	3.40	1.85
SDIA0420□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.070	3.20	1.40
SDIA0420□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.075	2.35	1.34
SDIA0420□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.125	2.20	1.04
SDIA0420□T100	10	±20% , ±30%	1KHz, 0.25V	0.165	1.60	0.90
SDIA0420□T150	15	±20% , ±30%	1KHz, 0.25V	0.230	1.35	0.77
SDIA0420□T220	22	±20% , ±30%	1KHz, 0.25V	0.350	1.05	0.62
SDIA0420□T330	33	±20% , ±30%	1KHz, 0.25V	0.550	0.85	0.49
SDIA0420□T470	47	±20% , ±30%	1KHz, 0.25V	0.710	0.74	0.44

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Electrical Characteristics

SDIA0430 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0430NT1R0	1.0	±30%	100KHz, 0.25V	0.014	5.26	4.15
SDIA0430NT1R5	1.5	±30%	100KHz, 0.25V	0.020	4.84	3.34
SDIA0430NT2R2	2.2	±30%	100KHz, 0.25V	0.030	4.50	2.95
SDIA0430NT3R3	3.3	±30%	100KHz, 0.25V	0.040	3.30	2.40
SDIA0430NT4R7	4.7	±30%	100KHz, 0.25V	0.060	2.90	2.00
SDIA0430□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.090	2.75	1.60
SDIA0430□T100	10	±20% , ±30%	1KHz, 0.25V	0.100	1.95	1.50
SDIA0430□T150	15	±20% , ±30%	1KHz, 0.25V	0.190	1.65	1.11
SDIA0430□T220	22	±20% , ±30%	1KHz, 0.25V	0.225	1.30	1.00
SDIA0430□T330	33	±20% , ±30%	1KHz, 0.25V	0.330	1.10	0.84
SDIA0430□T470	47	±20% , ±30%	1KHz, 0.25V	0.445	0.95	0.72
SDIA0430□T680	68	±20% , ±30%	1KHz, 0.25V	0.868	0.72	0.52
SDIA0430□T820	82	±20% , ±30%	1KHz, 0.25V	1.060	0.66	0.47
SDIA0430□T101	100	±20% , ±30%	1KHz, 0.25V	1.150	0.60	0.45

SDIA0520 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0520NT1R0	1.0	±30%	100KHz, 0.25V	0.020	4.33	4.30
SDIA0520NT1R5	1.5	±30%	100KHz, 0.25V	0.026	4.10	3.20
SDIA0520□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.038	3.85	2.90
SDIA0520□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.046	3.25	2.50
SDIA0520□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.065	2.40	2.20
SDIA0520□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.092	2.10	1.80
SDIA0520□T8R2	8.2	±20% , ±30%	100KHz, 0.25V	0.100	1.90	1.68
SDIA0520□T100	10	±20% , ±30%	1KHz, 0.25V	0.125	1.80	1.45
SDIA0520□T150	15	±20% , ±30%	1KHz, 0.25V	0.180	1.44	1.25
SDIA0520□T220	22	±20% , ±30%	1KHz, 0.25V	0.250	1.18	1.10
SDIA0520□T330	33	±20% , ±30%	1KHz, 0.25V	0.370	0.97	0.93
SDIA0520□T470	47	±20% , ±30%	1KHz, 0.25V	0.560	0.81	0.77

SDIA0540 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0540NT1R0	1.0	±30%	100KHz, 0.25V	0.012	7.35	4.90
SDIA0540NT1R5	1.5	±30%	100KHz, 0.25V	0.015	6.40	4.30
SDIA0540□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.019	5.00	3.80
SDIA0540□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.024	4.00	3.40
SDIA0540□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.030	3.50	3.00
SDIA0540□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.043	2.90	2.50
SDIA0540□T100	10	±20% , ±30%	1KHz, 0.25V	0.064	2.35	2.10
SDIA0540□T150	15	±20% , ±30%	1KHz, 0.25V	0.086	2.00	2.00
SDIA0540□T220	22	±20% , ±30%	1KHz, 0.25V	0.129	1.60	1.50
SDIA0540□T330	33	±20% , ±30%	1KHz, 0.25V	0.188	1.30	1.20
SDIA0540□T470	47	±20% , ±30%	1KHz, 0.25V	0.272	1.10	1.00
SDIA0540□T680	68	±20% , ±30%	1KHz, 0.25V	0.400	0.90	0.80
SDIA0540□T101	100	±20% , ±30%	1KHz, 0.25V	0.560	0.75	0.70
SDIA0540□T101-1	100	±20% , ±30%	100KHz, 0.25V	0.560	0.75	0.70

Note: SDIA0540NT101-1 The current when the inductance becomes 35% lower than its initial value.

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Electrical Characteristics

SDIA0620 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0620NT1R0	1.0	±30%	100KHz, 0.25V	0.020	4.30	3.50
SDIA0620NT1R5	1.5	±30%	100KHz, 0.25V	0.025	4.25	3.20
SDIA0620NT2R2	2.2	±30%	100KHz, 0.25V	0.035	3.75	2.75
SDIA0620NT3R3	3.3	±30%	100KHz, 0.25V	0.045	3.15	2.60
SDIA0620NT4R7	4.7	±30%	100KHz, 0.25V	0.058	3.00	2.00
SDIA0620□T5R6	5.6	±20% , ±30%	100KHz, 0.25V	0.070	2.40	1.90
SDIA0620□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.085	2.20	1.80
SDIA0620□T100	10	±20% , ±30%	1KHz, 0.25V	0.120	1.75	1.40
SDIA0620□T150	15	±20% , ±30%	1KHz, 0.25V	0.160	1.50	1.20
SDIA0620□T220	22	±20% , ±30%	1KHz, 0.25V	0.240	1.25	1.08
SDIA0620□T330	33	±20% , ±30%	1KHz, 0.25V	0.400	1.10	0.84
SDIA0620□T470	47	±20% , ±30%	1KHz, 0.25V	0.500	1.00	0.80

SDIA0628 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0628NT1R0	1.0	±30%	100KHz, 0.25V	0.012	6.70	5.20
SDIA0628NT1R5	1.5	±30%	100KHz, 0.25V	0.016	6.00	4.50
SDIA0628NT2R2	2.2	±30%	100KHz, 0.25V	0.020	5.10	3.80
SDIA0628NT3R3	3.3	±30%	100KHz, 0.25V	0.025	3.63	3.20
SDIA0628NT4R7	4.7	±30%	100KHz, 0.25V	0.033	3.00	2.70
SDIA0628□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.056	2.60	2.20
SDIA0628MT6R8-1	6.8	±20%	1KHz, 0.25V	0.047	2.60	2.20
SDIA0628□T100	10	±20% , ±30%	1KHz, 0.25V	0.078	2.05	1.80
SDIA0628□T150	15	±20% , ±30%	1KHz, 0.25V	0.125	1.75	1.70
SDIA0628□T180	18	±20% , ±30%	1KHz, 0.25V	0.130	1.55	1.50
SDIA0628□T220	22	±20% , ±30%	1KHz, 0.25V	0.140	1.45	1.40
SDIA0628□T270	27	±20% , ±30%	1KHz, 0.25V	0.180	1.40	1.20
SDIA0628□T330	33	±20% , ±30%	1KHz, 0.25V	0.220	1.36	1.10
SDIA0628□T470	47	±20% , ±30%	1KHz, 0.25V	0.280	1.15	1.00
SDIA0628□T680	68	±20% , ±30%	1KHz, 0.25V	0.450	0.95	0.80
SDIA0628□T820	82	±20% , ±30%	1KHz, 0.25V	0.550	0.80	0.70
SDIA0628□T101	100	±20% , ±30%	1KHz, 0.25V	0.670	0.65	0.60

SDIA0645 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%.	Isat (A) max.	Irms (A) max.
SDIA0645□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.021	6.00	4.00
SDIA0645□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.023	5.20	3.00
SDIA0645□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.026	4.00	3.00
SDIA0645□T4R7-1	4.7	±20% , ±30%	100KHz, 0.25V	0.025	5.20	3.30
SDIA0645□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.040	3.80	3.00
SDIA0645□T100	10	±20% , ±30%	1KHz, 0.25V	0.046	3.10	2.50
SDIA0645□T150	15	±20% , ±30%	1KHz, 0.25V	0.070	2.50	2.00
SDIA0645□T220	22	±20% , ±30%	1KHz, 0.25V	0.107	2.00	1.80
SDIA0645□T330	33	±20% , ±30%	1KHz, 0.25V	0.141	1.65	1.45
SDIA0645□T470	47	±20% , ±30%	1KHz, 0.25V	0.211	1.40	1.25
SDIA0645□T560	56	±20% , ±30%	1KHz, 0.25V	0.221	1.30	1.05
SDIA0645□T680	68	±20% , ±30%	1KHz, 0.25V	0.304	1.10	0.90
SDIA0645□T101	100	±20% , ±30%	1KHz, 0.25V	0.466	0.90	0.70
SDIA0645□T151	150	±20% , ±30%	1KHz, 0.25V	0.600	0.60	0.50
SDIA0645MT151-1	150	±20%	100KHz, 1V	0.580	0.90	0.70
SDIA0645□T221	220	±20% , ±30%	1KHz, 0.25V	1.100	0.80	0.45

Note: SDIA0645□T4R7-1/SDIA0645MT151-1 The current when the inductance becomes 35% lower than its initial value.

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Electrical Characteristics

SDIA0840 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±30%	Isat (A) max.	Irms (A) max.
SDIA0840NT1R4	1.4	±30%	100KHz, 0.25V	0.007	10.00	5.65
SDIA0840□T2R2	2.2	±20% , ±30%	100KHz, 0.25V	0.012	8.10	5.15
SDIA0840□T3R3	3.3	±20% , ±30%	100KHz, 0.25V	0.017	6.50	4.40
SDIA0840□T4R7	4.7	±20% , ±30%	100KHz, 0.25V	0.020	5.90	4.10
SDIA0840□T5R6	5.6	±20% , ±30%	100KHz, 0.25V	0.024	5.50	3.85
SDIA0840□T6R8	6.8	±20% , ±30%	100KHz, 0.25V	0.028	4.55	3.60
SDIA0840□T100	10	±20% , ±30%	1KHz, 0.25V	0.034	3.80	3.30
SDIA0840MT100-1	10	±20%	100KHz, 1V	0.034	3.80	3.10
SDIA0840□T150	15	±20% , ±30%	1KHz, 0.25V	0.056	2.95	2.60
SDIA0840□T220	22	±20% , ±30%	1KHz, 0.25V	0.074	2.40	2.10
SDIA0840□T330	33	±20% , ±30%	1KHz, 0.25V	0.100	2.05	1.80
SDIA0840MT330-1	33	±20%	100KHz, 0.5V	0.100	2.05	1.80
SDIA0840□T390	39	±20% , ±30%	1KHz, 0.25V	0.107	1.95	1.70
SDIA0840□T470	47	±20% , ±30%	1KHz, 0.25V	0.158	1.75	1.55
SDIA0840□T560	56	±20% , ±30%	1KHz, 0.25V	0.148	1.55	1.45
SDIA0840□T680	68	±20% , ±30%	1KHz, 0.25V	0.196	1.45	1.25
SDIA0840□T101	100	±20% , ±30%	1KHz, 0.25V	0.295	1.15	1.00
SDIA0840□T151	150	±20% , ±30%	1KHz, 0.25V	0.470	1.10	0.85
SDIA0840□T221	220	±20% , ±30%	1KHz, 0.25V	0.660	0.85	0.80
SDIA0840MT221-1	220	±20%	1KHz, 0.25V	0.599	0.80	0.80
SDIA0840MT221-2	220	±20%	1KHz, 0.25V	0.660	1.00	0.80
SDIA0840□T331	330	±20% , ±30%	1KHz, 0.25V	0.970	0.68	0.64
SDIA0840□T471	470	±20% , ±30%	1KHz, 0.25V	1.400	0.60	0.50
SDIA0840□T681	680	±20% , ±30%	1KHz, 0.25V	2.200	0.30	0.25

Note: SDIA0840MT100-1 The current when the inductance becomes 35% lower than its initial value.

SDIA0865 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	Isat (A) max.	Irms (A) max.
SDIA0865MT4R7	4.7	±20%	100KHz, 1V	0.022	8.50	4.70
SDIA0865MT5R6	5.6	±20%	100KHz, 1V	0.026	8.00	4.50
SDIA0865MT6R8	6.8	±20%	100KHz, 1V	0.0286	7.50	4.50
SDIA0865MT8R2	8.2	±20%	100KHz, 1V	0.031	7.00	4.20
SDIA0865MT100	10	±20%	100KHz, 1V	0.040	6.60	4.00
SDIA0865MT150	15	±20%	100KHz, 1V	0.062	4.80	3.60
SDIA0865MT220	22	±20%	100KHz, 1V	0.065	4.30	2.85
SDIA0865MT330	33	±20%	100KHz, 1V	0.118	3.50	2.30
SDIA0865MT470	47	±20%	100KHz, 1V	0.156	3.00	2.20
SDIA0865MT680	68	±20%	100KHz, 1V	0.230	2.70	1.75
SDIA0865MT820	82	±20%	100KHz, 1V	0.300	2.50	1.40
SDIA0865MT101	100	±20%	100KHz, 1V	0.390	2.30	1.30
SDIA0865MT151	150	±20%	100KHz, 1V	0.575	1.80	1.20
SDIA0865MT221	220	±20%	100KHz, 1V	0.988	1.40	0.90
SDIA0865MT331	330	±20%	100KHz, 1V	1.320	1.10	0.70
SDIA0865MT431	430	±20%	100KHz, 1V	1.580	0.95	0.61
SDIA0865MT471	470	±20%	100KHz, 1V	1.690	0.90	0.55
SDIA0865MT821	820	±20%	100KHz, 1V	2.000	0.65	0.50
SDIA0865MT102	1000	±20%	100KHz, 1V	2.820	0.60	0.40
SDIA0865MT152	1500	±20%	100KHz, 1V	4.380	0.54	0.36
SDIA0865MT302	3000	±20%	100KHz, 1V	10.800	0.30	0.24
SDIA0865MT472	4700	±20%	100KHz, 1V	14.580	0.25	0.22
SDIA0865MT682	6800	±20%	100KHz, 1V	22.400	0.24	0.20

■ Viking is capable to design according to customer special requirement

SMD Power Inductor – SDIA-G



Features

- Small and Low profile inductor
- It corresponds to high current
- Shield structure magnetically
- Strong structure against a shock-proof

Applications

- Our products are designed and promoted for use in general electronic devices such as audio-equipment, office automation equipment, household appliance and information service.

Characteristics

- Isat : DC current at which the inductance drops approximate 30% from its value without current
- Irms : The DC current is inductor surface temperature to rise by 40°C (Reference ambient temperature 20°C).
- Operating temperature range: -40~125°C
- Storage Temperature: -10~40°C; Humidity 30~70%RH

Inductance and rated current ranges

- SDIA02512-G 0.24~100μH 5.00~0.79A
- SDIA0315-G 0.22~47μH 5.00~0.35A
- SDIA0418-G 0.24~100μH 9.00~0.40A
- SDIA0420-G 1.00~100μH 4.78~0.48A
- SDIA0430-G 1.00~150μH 5.26~0.50A
- SDIA0520-G 1.00~100μH 4.40~0.53A
- SDIA0540-G 1.00~1000μH 7.35~0.21A
- SDIA0620-G 1.00~100μH 4.15~0.50A
- SDIA0628-G 1.00~470μH 5.75~0.28A
- SDIA0645-G 1.00~1000μH 8.50~0.30A
- SDIA0840-G 6.80~1500μH 4.00~0.32A

– Test equipment:

L: HP4263B\IM3532-50 or equivalent

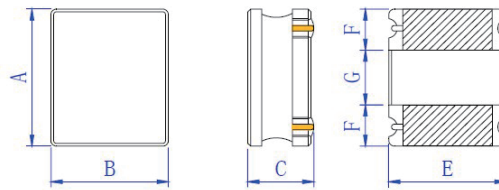
RDC: HP4263B\RM3545 or equivalent

Isat: Microtest 6379 & 6220 or equivalent

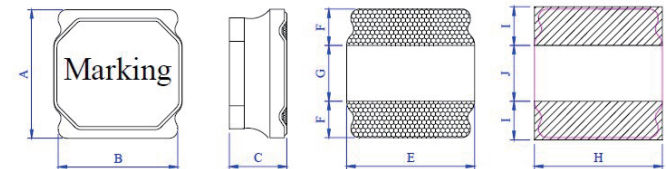
Irms: Microtest 6379 & 6220 or equivalent

– Electrical specifications at 20°C

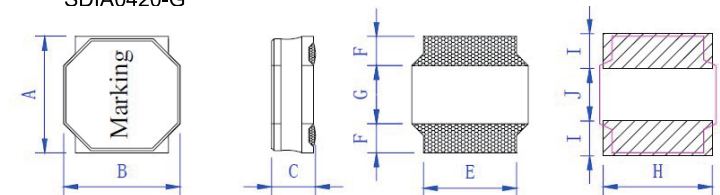
SDIA2512-G



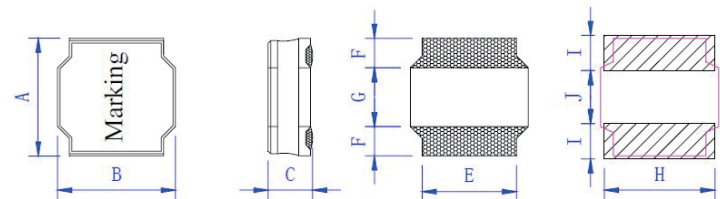
SDIA0315-G



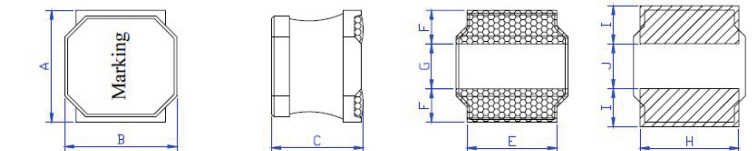
SDIA0420-G



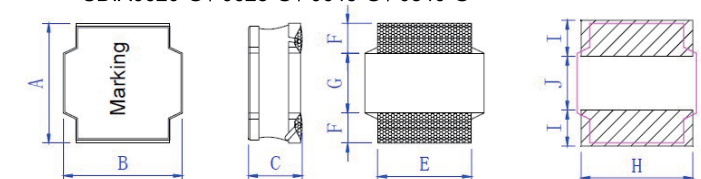
SDIA0418-G / 0430-G / 0520-G



SDIA0540-G



SDIA0620-G / 0628-G / 0645-G / 0840-G



Dimensions

Type	A mm	B mm	C mm	E mm	F mm	G mm	H mm	I mm	J mm
SDIA02512-G	2.5±0.2	2.1±0.2	1.25 max	2.1 typ	0.85 typ	0.80 typ	2.1 typ	0.85 typ	0.80 typ
SDIA0315-G	3.0±0.2	3.0±0.2	1.5 max	2.8 typ	0.85 typ	1.3 typ	3.0 typ	0.9 typ	1.3 typ
SDIA0418-G	4.0±0.2	4.0±0.2	1.8 max	2.6±0.3	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0420-G	4.0±0.2	4.0±0.2	2.0 max	3.4 typ	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0430-G	4.0±0.2	4.0±0.2	3.0 max	3.4 typ	1.2 typ	1.6 typ	3.6 typ	1.4 typ	1.6 typ
SDIA0520-G	5.0±0.2	5.0±0.2	2.1 max	4.0 typ	1.2 typ	2.6 typ	4.4 typ	1.6 typ	2.4 typ
SDIA0540-G	5.0±0.2	5.0±0.2	4.2 max	4.0 typ	1.5 typ	2.0 typ	4.4 typ	1.6 typ	2.4 typ
SDIA0620-G	6.0±0.2	6.0±0.2	2.0 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0628-G	6.0±0.2	6.0±0.2	2.8 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0645-G	6.0±0.2	6.0±0.2	4.5 max	5.0 typ	1.5 typ	3.0 typ	5.7 typ	1.9 typ	2.6 typ
SDIA0840-G	8.0±0.2	8.0±0.2	4.0±0.3	6.4 typ	2.3 typ	4.0 typ	7.5 typ	2.4 typ	3.6 typ

Product Identification

SDIA	0315	M	T	470	-G
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance	Special
	02512: 2.5x1.25 0315: 3.0x1.5 0418: 4.0x1.8 0420: 4.0x2.0 0430: 4.0x3.0 0520: 5.0x2.1 0540: 5.0x4.2 0620: 6.0x2.0 0628: 6.0x2.8 0645: 6.0x4.5 0840: 8.0x4.0	M: $\pm 20\%$ N: $\pm 30\%$	T: Tape and Reel	1R0: 1.0 μ H 470: 47 μ H 101: 100 μ H	

Electrical Characteristics

SDIA02512-G Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω)		Isat (A)	I _{rms} (A)
				max	typ		
SDIA02512NTR24-G	0.24	$\pm 30\%$	1MHz, 1V	0.034	0.028	5.00	-
SDIA02512NTR33-G	0.33	$\pm 30\%$	1MHz, 1V	0.049	0.035	4.00	3.35
SDIA02512NTR47-G	0.47	$\pm 30\%$	1MHz, 1V	0.061	0.042	3.82	2.15
SDIA02512NTR68-G	0.68	$\pm 30\%$	1MHz, 1V	0.074	0.051	3.28	1.96
SDIA02512MT1R0-G	1.0	$\pm 20\%$	1MHz, 1V	0.090	0.073	2.59	1.93
SDIA02512MT1R5-G	1.5	$\pm 20\%$	1MHz, 1V	0.147	0.129	2.24	1.40
SDIA02512MT2R2-G	2.2	$\pm 20\%$	1MHz, 1V	0.216	0.165	1.85	1.15
SDIA02512MT3R3-G	3.3	$\pm 20\%$	1MHz, 1V	0.264	0.200	1.61	1.04
SDIA02512MT4R7-G	4.7	$\pm 20\%$	1MHz, 1V	0.377	0.273	1.12	0.84
SDIA02512MT5R6-G	5.6	$\pm 20\%$	1MHz, 1V	0.538	0.380	1.11	0.73
SDIA02512MT6R8-G	6.8	$\pm 20\%$	1MHz, 1V	0.581	0.405	0.98	0.69
SDIA02512MT8R2-G	8.2	$\pm 20\%$	1MHz, 1V	0.658	0.563	0.98	0.65
SDIA02512MT100-G	10	$\pm 20\%$	1MHz, 1V	0.690	0.658	0.79	0.62

Viking is capable to design according to customer special requirement

Electrical Characteristics

SDIA0315-G Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω)	Isat (A)	Irms (A)	Marking Code
SDIA0315NTR22-G	0.22	$\pm 30\%$	100KHz, 0.5V	0.016 $\pm 30\%$	5.00	3.50	T
SDIA0315NTR47-G	0.47	$\pm 30\%$	100KHz, 0.5V	0.020 $\pm 30\%$	3.90	2.60	S
SDIA0315NTR68-G	0.68	$\pm 30\%$	100KHz, 0.5V	0.025 $\pm 30\%$	3.00	2.45	U
SDIA0315NT1R0-G	1.0	$\pm 30\%$	100KHz, 0.5V	0.030 $\pm 20\%$	2.32	2.35	A
SDIA0315NT1R5-G	1.5	$\pm 30\%$	100KHz, 0.5V	0.040 $\pm 20\%$	2.30	1.70	B
SDIA0315N2R2-G	2.2	$\pm 30\%$	100KHz, 0.5V	0.060 $\pm 20\%$	1.60	1.60	C
SDIA0315NT2R7-G	2.7	$\pm 30\%$	100KHz, 0.5V	0.075 $\pm 20\%$	1.52	1.43	D
SDIA0315NT3R3-G	3.3	$\pm 30\%$	100KHz, 0.5V	0.080 $\pm 20\%$	1.32	1.36	E
SDIA0315MT4R7-G	4.7	$\pm 20\%$	100KHz, 0.5V	0.120 $\pm 20\%$	1.10	1.09	H
SDIA0315MT5R6-G	5.6	$\pm 20\%$	100KHz, 0.5V	0.140 $\pm 20\%$	0.95	0.86	G
SDIA0315MT6R2-G	6.2	$\pm 20\%$	100KHz, 0.5V	0.160 $\pm 20\%$	1.00	0.86	F
SDIA0315MT6R8-G	6.8	$\pm 20\%$	100KHz, 0.5V	0.160 $\pm 20\%$	0.87	0.85	I
SDIA0315MT8R2-G	8.2	$\pm 20\%$	100KHz, 0.5V	0.220 $\pm 20\%$	0.80	0.80	J
SDIA0315MT100-G	10	$\pm 20\%$	100KHz, 0.5V	0.230 $\pm 20\%$	0.72	0.77	K
SDIA0315MT150-G	15	$\pm 20\%$	100KHz, 0.5V	0.360 $\pm 20\%$	0.66	0.65	L
SDIA0315MT180-G	18	$\pm 20\%$	100KHz, 0.5V	0.430 $\pm 20\%$	0.56	0.59	M
SDIA0315MT220-G	22	$\pm 20\%$	100KHz, 0.5V	0.520 $\pm 20\%$	0.52	0.57	N
SDIA0315MT330-G	33	$\pm 20\%$	100KHz, 0.5V	0.840 $\pm 20\%$	0.44	0.43	O
SDIA0315MT390-G	39	$\pm 20\%$	100KHz, 0.5V	1.100 $\pm 20\%$	0.40	0.40	P
SDIA0315MT470-G	47	$\pm 20\%$	100KHz, 0.5V	1.340 $\pm 20\%$	0.35	0.35	No Marking

SDIA0418-G Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω) $\pm 30\%$	Isat (A)	Irms (A)
SDIA0418NTR24-G	0.24	$\pm 30\%$	100KHz, 0.5V	0.014	9.00	5.00
SDIA0418NTR47-G	0.47	$\pm 30\%$	100KHz, 0.5V	0.021	6.50	4.00
SDIA0418NTR68-G	0.68	$\pm 30\%$	100KHz, 0.5V	0.020	4.90	3.30
SDIA0418NT1R0-G	1.0	$\pm 30\%$	100KHz, 0.5V	0.030	4.30	2.00
SDIA0418NT1R5-G	1.5	$\pm 30\%$	100KHz, 0.5V	0.040	3.35	1.80
SDIA0418MT2R2-G	2.2	$\pm 20\%$	100KHz, 0.5V	0.045	2.70	1.65
SDIA0418MT2R7-G	2.7	$\pm 20\%$	100KHz, 0.5V	0.058	2.30	1.45
SDIA0418MT3R3-G	3.3	$\pm 20\%$	100KHz, 0.5V	0.070	2.45	1.23
SDIA0418MT4R7-G	4.7	$\pm 20\%$	100KHz, 0.5V	0.090	1.70	1.20
SDIA0418MT5R6-G	5.6	$\pm 20\%$	100KHz, 0.5V	0.107	1.60	1.50
SDIA0418MT6R8-G	6.8	$\pm 20\%$	100KHz, 0.5V	0.110	1.45	1.06
SDIA0418MT8R2-G	8.2	$\pm 20\%$	100KHz, 0.5V	0.160	1.35	0.90
SDIA0418MT100-G	10	$\pm 20\%$	100KHz, 0.5V	0.180	1.30	0.84
SDIA0418MT120-G	12	$\pm 20\%$	100KHz, 0.5V	0.190	1.10	1.00
SDIA0418MT150-G	15	$\pm 20\%$	100KHz, 0.5V	0.250	0.94	0.65
SDIA0418MT220-G	22	$\pm 20\%$	100KHz, 0.5V	0.360	0.80	0.59
SDIA0418MT330-G	33	$\pm 20\%$	100KHz, 0.5V	0.530	0.65	0.49
SDIA0418MT390-G	39	$\pm 20\%$	100KHz, 0.5V	0.670	0.60	0.45
SDIA0418MT470-G	47	$\pm 20\%$	100KHz, 0.5V	0.650	0.57	0.42
SDIA0418MT560-G	56	$\pm 20\%$	100KHz, 0.5V	0.900	0.51	0.38
SDIA0418MT680-G	68	$\pm 20\%$	100KHz, 0.5V	1.000	0.47	0.32
SDIA0418MT820-G	82	$\pm 20\%$	100KHz, 0.5V	1.300	0.43	0.28
SDIA0418MT101-G	100	$\pm 20\%$	100KHz, 0.5V	1.500	0.40	0.25

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SDIA 0420-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0420MT1R0-G	1.0	±20%	100KHz, 0.5V	0.029	4.78	2.15
SDIA0420MT1R5-G	1.5	±20%	100KHz, 0.5V	0.035	4.45	1.98
SDIA0420MT2R2-G	2.2	±20%	100KHz, 0.5V	0.040	3.40	1.85
SDIA0420MT3R3-G	3.3	±20%	100KHz, 0.5V	0.070	3.20	1.40
SDIA0420MT4R7-G	4.7	±20%	100KHz, 0.5V	0.075	2.35	1.34
SDIA0420MT5R1-G	5.1	±20%	100KHz, 0.5V	0.085	2.30	1.27
SDIA0420MT5R6-G	5.6	±20%	100KHz, 0.5V	0.090	2.20	1.22
SDIA0420MT6R8-G	6.8	±20%	100KHz, 0.5V	0.125	2.20	1.04
SDIA0420MT8R2-G	8.2	±20%	100KHz, 0.5V	0.155	1.75	1.04
SDIA0420MT100-G	10	±20%	100KHz, 0.5V	0.165	1.60	0.90
SDIA0420MT150-G	15	±20%	100KHz, 0.5V	0.230	1.35	0.77
SDIA0420MT220-G	22	±20%	100KHz, 0.5V	0.350	1.05	0.62
SDIA0420MT270-G	27	±20%	100KHz, 0.5V	0.545	1.02	0.50
SDIA0420MT330-G	33	±20%	100KHz, 0.5V	0.550	0.85	0.49
SDIA0420MT390-G	39	±20%	100KHz, 0.5V	0.650	0.82	0.46
SDIA0420MT470-G	47	±20%	100KHz, 0.5V	0.710	0.74	0.44
SDIA0420MT560-G	56	±20%	100KHz, 0.5V	0.800	0.66	0.41
SDIA0420MT680-G	68	±20%	100KHz, 0.5V	1.060	0.61	0.36
SDIA0420MT820-G	82	±20%	100KHz, 0.5V	1.170	0.50	0.34
SDIA0420MT101-G	100	±20%	100KHz, 0.5V	1.550	0.48	0.31

SDIA0430-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0430NT1R0-G	1.0	±30%	100KHz, 0.5V	0.016	5.26	4.15
SDIA0430NT1R5-G	1.5	±30%	100KHz, 0.5V	0.020	4.84	3.34
SDIA0430NT2R2-G	2.2	±30%	100KHz, 0.5V	0.030	4.90	3.00
SDIA0430NT3R3-G	3.3	±30%	100KHz, 0.5V	0.040	3.30	2.40
SDIA0430MT3R9-G	3.9	±20%	100KHz, 0.5V	0.057	3.00	2.10
SDIA0430MT4R7-G	4.7	±20%	100KHz, 0.5V	0.060	2.90	2.00
SDIA0430MT6R8-G	6.8	±20%	100KHz, 0.5V	0.090	2.20	1.60
SDIA0430MT8R2-G	8.2	±20%	100KHz, 0.5V	0.090	2.10	1.60
SDIA0430MT100-G	10	±20%	100KHz, 0.5V	0.100	1.95	1.50
SDIA0430MT150-G	15	±20%	100KHz, 0.5V	0.190	1.65	1.11
SDIA0430MT220-G	22	±20%	100KHz, 0.5V	0.250	1.30	1.00
SDIA0430MT330-G	33	±20%	100KHz, 0.5V	0.330	1.10	0.84
SDIA0430MT470-G	47	±20%	100KHz, 0.5V	0.600	0.95	0.72
SDIA0430MT680-G	68	±20%	100KHz, 0.5V	0.868	0.72	0.52
SDIA0430MT820-G	82	±20%	100KHz, 0.5V	1.060	0.66	0.47
SDIA0430MT101-G	100	±20%	100KHz, 0.5V	1.150	0.60	0.45
SDIA0430MT121-G	120	±20%	100KHz, 0.5V	1.350	0.57	0.55
SDIA0430MT151-G	150	±20%	100KHz, 0.5V	2.350	0.50	0.35

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SDIA 0520-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0520NT1R0-G	1.0	±30%	100KHz, 0.5V	0.020	4.40	3.80
SDIA0520NT1R5-G	1.5	±30%	100KHz, 0.5V	0.028	4.10	3.20
SDIA0520NT2R2-G	2.2	±30%	100KHz, 0.5V	0.033	3.20	2.90
SDIA0520NT3R3-G	3.3	±30%	100KHz, 0.5V	0.043	2.55	2.50
SDIA0520NT4R7-G	4.7	±30%	100KHz, 0.5V	0.058	2.50	2.20
SDIA0520NT5R6-G	5.6	±30%	100KHz, 0.5V	0.068	2.30	2.05
SDIA0520MT6R8-G	6.8	±20%	100KHz, 0.5V	0.075	2.05	1.80
SDIA0520MT8R2-G	8.2	±20%	100KHz, 0.5V	0.096	1.85	1.65
SDIA0520MT100-G	10	±20%	100KHz, 0.5V	0.120	1.70	1.55
SDIA0520MT150-G	15	±20%	100KHz, 0.5V	0.165	1.35	1.25
SDIA0520MT180-G	18	±20%	100KHz, 0.5V	0.200	1.25	1.15
SDIA0520MT220-G	22	±20%	100KHz, 0.5V	0.220	1.15	1.10
SDIA0520MT330-G	33	±20%	100KHz, 0.5V	0.350	0.92	0.90
SDIA0520MT390-G	39	±20%	100KHz, 0.5V	0.410	0.80	0.80
SDIA0520MT470-G	47	±20%	100KHz, 0.5V	0.520	0.77	0.77
SDIA0520MT560-G	56	±20%	100KHz, 0.5V	0.600	0.77	0.70
SDIA0520MT680-G	68	±20%	100KHz, 0.5V	0.680	0.65	0.64
SDIA0520MT820-G	82	±20%	100KHz, 0.5V	0.860	0.55	0.55
SDIA0520MT101-G	100	±20%	100KHz, 0.5V	1.100	0.53	0.53

SDIA 0540-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0540NT1R0-G	1.0	±30%	100KHz, 0.5V	0.012	7.35	4.90
SDIA0540NT1R5-G	1.5	±30%	100KHz, 0.5V	0.014	6.00	4.50
SDIA0540NT1R8-G	1.8	±30%	100KHz, 0.5V	0.016	5.50	4.30
SDIA0540NT2R2-G	2.2	±30%	100KHz, 0.5V	0.018	4.90	3.80
SDIA0540NT3R3-G	3.3	±30%	100KHz, 0.5V	0.024	3.95	3.40
SDIA0540NT4R7-G	4.7	±30%	100KHz, 0.5V	0.030	3.50	3.00
SDIA0540NT5R6-G	5.6	±30%	100KHz, 0.5V	0.040	3.00	2.80
SDIA0540MT6R8-G	6.8	±20%	100KHz, 0.5V	0.045	2.90	2.50
SDIA0540MT8R2-G	8.2	±20%	100KHz, 0.5V	0.055	2.70	2.30
SDIA0540MT100-G	10	±20%	100KHz, 0.5V	0.066	2.35	2.10
SDIA0540MT150-G	15	±20%	100KHz, 0.5V	0.090	2.00	2.00
SDIA0540MT220-G	22	±20%	100KHz, 0.5V	0.130	1.60	1.50
SDIA0540MT330-G	33	±20%	100KHz, 0.5V	0.200	1.30	1.20
SDIA0540MT390-G	39	±20%	100KHz, 0.5V	0.230	1.20	1.10
SDIA0540MT470-G	47	±20%	100KHz, 0.5V	0.300	1.00	1.00
SDIA0540MT560-G	56	±20%	100KHz, 0.5V	0.330	0.95	0.85
SDIA0540MT680-G	68	±20%	100KHz, 0.5V	0.420	0.90	0.80
SDIA0540MT820-G	82	±20%	100KHz, 0.5V	0.500	0.80	0.75
SDIA0540MT101-G	100	±20%	1KHz, 0.5V	0.620	0.75	0.70
SDIA0540MT151-G	150	±20%	1KHz, 0.5V	0.850	0.65	0.60
SDIA0540MT181-G	180	±20%	1KHz, 0.5V	1.150	0.50	0.43
SDIA0540MT221-G	220	±20%	1KHz, 0.5V	1.200	0.46	0.42
SDIA0540MT331-G	330	±20%	1KHz, 0.5V	1.750	0.40	0.36
SDIA0540MT391-G	390	±20%	1KHz, 0.5V	2.500	0.35	0.32
SDIA0540MT471-G	470	±20%	1KHz, 0.5V	2.850	0.32	0.30
SDIA0540MT561-G	560	±20%	1KHz, 0.5V	3.200	0.30	0.28
SDIA0540MT681-G	680	±20%	1KHz, 0.5V	3.750	0.27	0.25
SDIA0540MT821-G	820	±20%	1KHz, 0.5V	5.700	0.24	0.22
SDIA0540MT102-G	1000	±20%	1KHz, 0.5V	6.500	0.21	0.19

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

SDIA 0620-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0620NT1R0-G	1.0	±30%	100KHz, 0.5V	0.020	4.15	3.50
SDIA0620NT1R5-G	1.5	±30%	100KHz, 0.5V	0.022	4.00	3.20
SDIA0620NT2R2-G	2.2	±30%	100KHz, 0.5V	0.028	3.75	2.75
SDIA0620NT3R3-G	3.3	±30%	100KHz, 0.5V	0.035	3.15	2.60
SDIA0620NT4R7-G	4.7	±30%	100KHz, 0.5V	0.058	3.00	2.00
SDIA0620NT6R8-G	6.8	±30%	100KHz, 0.5V	0.079	2.20	1.80
SDIA0620MT100-G	10	±20%	100KHz, 0.5V	0.105	1.75	1.40
SDIA0620MT150-G	15	±20%	100KHz, 0.5V	0.145	1.20	1.20
SDIA0620MT220-G	22	±20%	100KHz, 0.5V	0.204	1.05	1.00
SDIA0620MT330-G	33	±20%	100KHz, 0.5V	0.300	0.95	0.84
SDIA0620MT470-G	47	±20%	100KHz, 0.5V	0.430	0.70	0.65
SDIA0620MT680-G	68	±20%	100KHz, 0.5V	0.660	0.62	0.60
SDIA0620MT101-G	100	±20%	100KHz, 0.5V	1.200	0.50	0.45

SDIA 0628-G Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) ±30%	Isat (A)	Irms (A)
SDIA0628NT1R0-G	1.0	±30%	100KHz, 0.5V	0.014	5.75	5.20
SDIA0628NT1R5-G	1.5	±30%	100KHz, 0.5V	0.016	5.00	4.58
SDIA0628NT2R2-G	2.2	±30%	100KHz, 0.5V	0.020	5.10	3.75
SDIA0628NT3R3-G	3.3	±30%	100KHz, 0.5V	0.023	3.60	3.48
SDIA0628NT3R9-G	3.9	±30%	100KHz, 0.5V	0.028	3.00	3.20
SDIA0628NT4R7-G	4.7	±30%	100KHz, 0.5V	0.031	2.70	3.08
SDIA0628NT6R8-G	6.8	±30%	100KHz, 0.5V	0.048	2.30	2.40
SDIA0628NT8R2-G	8.2	±30%	100KHz, 0.5V	0.055	2.30	2.25
SDIA0628MT100-G	10	±20%	100KHz, 0.5V	0.065	1.90	1.95
SDIA0628MT150-G	15	±20%	100KHz, 0.5V	0.095	1.60	1.45
SDIA0628MT220-G	22	±20%	100KHz, 0.5V	0.135	1.30	1.40
SDIA0628MT270-G	27	±20%	100KHz, 0.5V	0.155	1.50	1.32
SDIA0628MT330-G	33	±20%	100KHz, 0.5V	0.220	1.10	1.22
SDIA0628MT390-G	39	±20%	100KHz, 0.5V	0.225	1.25	1.10
SDIA0628MT470-G	47	±20%	100KHz, 0.5V	0.300	0.95	1.06
SDIA0628MT680-G	68	±20%	100KHz, 0.5V	0.420	0.76	0.86
SDIA0628MT820-G	82	±20%	100KHz, 0.5V	0.520	0.64	0.70
SDIA0628MT101-G	100	±20%	100KHz, 0.5V	0.570	0.62	0.70
SDIA0628MT151-G	150	±20%	100KHz, 0.5V	0.760	0.50	0.50
SDIA0628MT221-G	220	±20%	100KHz, 0.5V	1.200	0.38	0.38
SDIA0628MT331-G	330	±20%	100KHz, 0.5V	1.800	0.32	0.32
SDIA0628MT471-G	470	±20%	100KHz, 0.5V	2.300	0.28	0.28

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SDIA 0645-G Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω) $\pm 30\%$	Isat (A)	Irms (A)
SDIA0645NT1R0-G	1.0	$\pm 30\%$	100KHz, 0.5V	0.014	8.50	5.14
SDIA0645NT1R3-G	1.3	$\pm 30\%$	100KHz, 0.5V	0.016	8.00	5.05
SDIA0645NT1R5-G	1.5	$\pm 30\%$	100KHz, 0.5V	0.016	8.35	5.05
SDIA0645NT1R8-G	1.8	$\pm 30\%$	100KHz, 0.5V	0.018	7.00	4.95
SDIA0645NT2R2-G	2.2	$\pm 30\%$	100KHz, 0.5V	0.021	6.00	4.60
SDIA0645NT3R0-G	3.0	$\pm 30\%$	100KHz, 0.5V	0.024	5.00	3.80
SDIA0645NT3R3-G	3.3	$\pm 30\%$	100KHz, 0.5V	0.024	5.00	3.70
SDIA0645MT3R9-G	3.9	$\pm 20\%$	100KHz, 0.5V	0.028	4.50	3.50
SDIA0645MT4R7-G	4.7	$\pm 20\%$	100KHz, 0.5V	0.031	4.00	3.30
SDIA0645MT5R6-G	5.6	$\pm 20\%$	100KHz, 0.5V	0.035	3.80	3.15
SDIA0645MT6R3-G	6.3	$\pm 20\%$	100KHz, 0.5V	0.035	3.80	3.15
SDIA0645MT6R8-G	6.8	$\pm 20\%$	100KHz, 0.5V	0.038	3.80	3.00
SDIA0645MT8R2-G	8.2	$\pm 20\%$	100KHz, 0.5V	0.043	3.50	2.70
SDIA0645MT100-G	10	$\pm 20\%$	100KHz, 0.5V	0.047	3.20	2.45
SDIA0645MT120-G	12	$\pm 20\%$	100KHz, 0.5V	0.058	2.80	2.20
SDIA0645MT150-G	15	$\pm 20\%$	100KHz, 0.5V	0.077	2.50	2.05
SDIA0645MT220-G	22	$\pm 20\%$	100KHz, 0.5V	0.115	2.05	1.80
SDIA0645MT330-G	33	$\pm 20\%$	100KHz, 0.5V	0.145	1.65	1.45
SDIA0645MT390-G	39	$\pm 20\%$	100KHz, 0.5V	0.210	1.50	1.25
SDIA0645MT470-G	47	$\pm 20\%$	100KHz, 0.5V	0.220	1.40	1.20
SDIA0645MT560-G	56	$\pm 20\%$	100KHz, 0.5V	0.260	1.30	1.10
SDIA0645MT680-G	68	$\pm 20\%$	100KHz, 0.5V	0.330	1.20	1.00
SDIA0645MT820-G	82	$\pm 20\%$	100KHz, 0.5V	0.450	1.05	0.90
SDIA0645MT101-G	100	$\pm 20\%$	100KHz, 0.5V	0.500	0.95	0.80
SDIA0645MT121-G	120	$\pm 20\%$	100KHz, 0.5V	0.466	0.88	0.79
SDIA0645MT151-G	150	$\pm 20\%$	100KHz, 0.5V	0.800	0.80	0.70
SDIA0645MT181-G	180	$\pm 20\%$	100KHz, 0.5V	0.950	0.75	0.65
SDIA0645MT221-G	220	$\pm 20\%$	100KHz, 0.5V	1.200	0.70	0.59
SDIA0645MT331-G	330	$\pm 20\%$	100KHz, 0.5V	1.700	0.57	0.57
SDIA0645MT471-G	470	$\pm 20\%$	100KHz, 0.5V	1.800	0.50	0.42
SDIA0645MT681-G	680	$\pm 20\%$	100KHz, 0.5V	3.550	0.42	0.33
SDIA0645MT102-G	1000	$\pm 20\%$	100KHz, 0.5V	4.550	0.30	0.20

■ Viking is capable to design according to customer special requirement

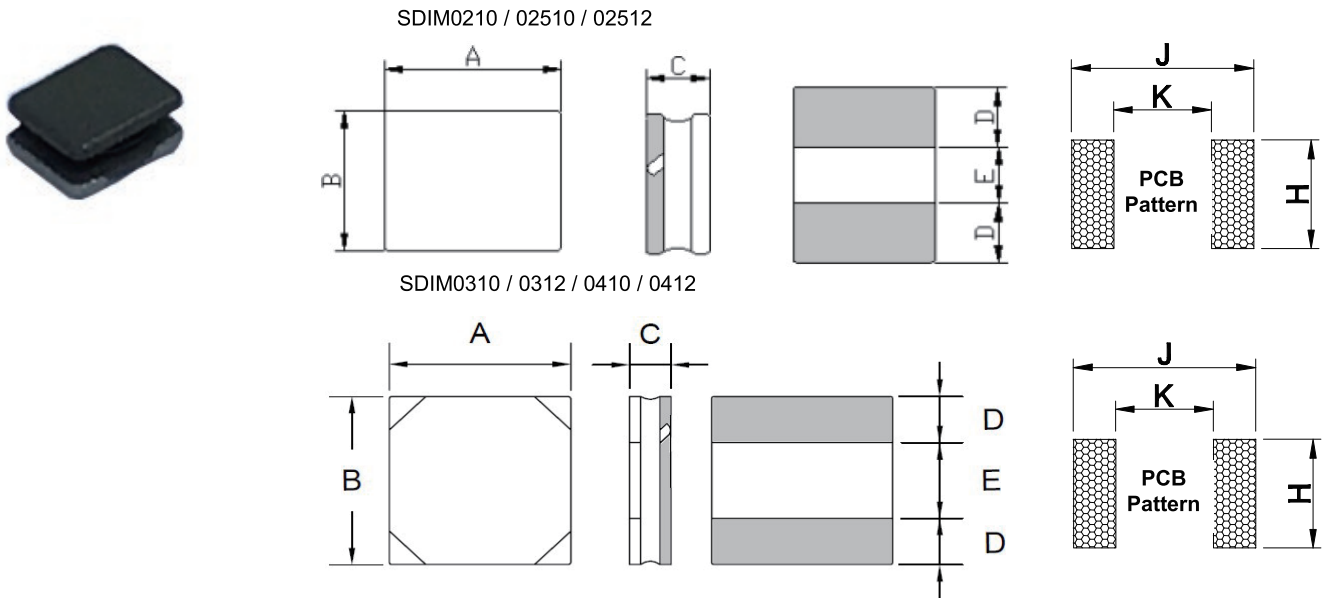
■ Electrical Characteristics

SDIA 0840-G Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω) $\pm 30\%$	Isat (A)	Irms (A)
SDIA0840MT6R8-G	6.8	$\pm 20\%$	100KHz, 0.5V	0.025	4.00	3.70
SDIA0840MT8R2-G	8.2	$\pm 20\%$	100KHz, 0.5V	0.028	4.20	3.45
SDIA0840MT100-G	10	$\pm 20\%$	100KHz, 0.5V	0.034	3.40	3.10
SDIA0840MT120-G	12	$\pm 20\%$	100KHz, 0.5V	0.041	3.50	2.80
SDIA0840MT150-G	15	$\pm 20\%$	100KHz, 0.5V	0.050	2.70	2.40
SDIA0840MT180-G	18	$\pm 20\%$	100KHz, 0.5V	0.066	2.70	2.30
SDIA0840MT220-G	22	$\pm 20\%$	100KHz, 0.5V	0.066	2.20	2.20
SDIA0840MT270-G	27	$\pm 20\%$	100KHz, 0.5V	0.083	2.00	2.00
SDIA0840MT330-G	33	$\pm 20\%$	100KHz, 0.5V	0.100	1.90	1.70
SDIA0840MT390-G	39	$\pm 20\%$	100KHz, 0.5V	0.120	1.70	1.60
SDIA0840MT470-G	47	$\pm 20\%$	100KHz, 0.5V	0.150	1.50	1.40
SDIA0840MT560-G	56	$\pm 20\%$	100KHz, 0.5V	0.180	1.55	1.45
SDIA0840MT680-G	68	$\pm 20\%$	100KHz, 0.5V	0.230	1.20	1.10
SDIA0840MT750-G	75	$\pm 20\%$	100KHz, 0.5V	0.211	1.35	1.20
SDIA0840MT800-G	80	$\pm 20\%$	100KHz, 0.5V	0.230	1.30	1.15
SDIA0840MT820-G	82	$\pm 20\%$	100KHz, 0.5V	0.225	1.30	1.20
SDIA0840MT101-G	100	$\pm 20\%$	100KHz, 0.5V	0.290	1.00	1.00
SDIA0840MT121-G	120	$\pm 20\%$	100KHz, 0.5V	0.334	1.05	0.95
SDIA0840MT151-G	150	$\pm 20\%$	100KHz, 0.5V	0.480	0.95	0.85
SDIA0840MT221-G	220	$\pm 20\%$	100KHz, 0.5V	0.660	0.85	0.80
SDIA0840MT331-G	330	$\pm 20\%$	100KHz, 0.5V	1.020	0.68	0.64
SDIA0840MT471-G	470	$\pm 20\%$	100KHz, 0.5V	1.500	0.60	0.60
SDIA0840MT681-G	680	$\pm 20\%$	100KHz, 0.5V	2.040	0.50	0.45
SDIA0840MT102-G	1000	$\pm 20\%$	100KHz, 0.5V	2.800	0.40	0.35
SDIA0840MT152-G	1500	$\pm 20\%$	100KHz, 0.5V	4.300	0.32	0.26

■ Viking is capable to design according to customer special requirement

SMD Power Inductor – SDIM



Dimensions

Unit: mm

Type	A	B	C	D	E	H	J	K
SDIM0210	2.0-0.1/+0.2	1.6-0.1/+0.2	1.0 max	0.5 ref	1.0 ref	1.9	2.3	0.8
SDIM02510	2.5-0.1/+0.2	2.0-0.1/+0.2	1.0 max	0.75 ref	1.0 ref	2.4	2.9	1.0
SDIM02512	2.5-0.1/+0.2	2.0-0.1/+0.2	1.2 max	0.75 ref	1.0 ref	2.4	2.9	1.0
SDIM0310	3.0±0.2	3.0±0.2	1.0 max	1.0 ref	1.0 ref	3.2	3.2	1.0
SDIM0312	3.0±0.2	3.0±0.2	1.2 max	1.0 ref	1.0 ref	3.2	3.2	1.0
SDIM0410	4.0±0.2	4.0±0.2	1.0 max	1.2 ref	1.6 ref	4.2	4.2	1.2
SDIM0412	4.0±0.2	4.0±0.2	1.2 max	1.2 ref	1.6 ref	4.2	4.2	1.2

Features

- Low profile power inductors
- 100% Lead(Pb) & Halogen-Free and RoHS compliant

Applications

- Smart Phone
- Digital Camera
- GPS and Portable Devices

Inductance and rated current ranges

–SDIM0210	0.24~4.7μH	6.5~1.4A
–SDIM02510	0.24~4.7μH	8.0~1.4A
–SDIM02512	0.33~3.3μH	7.2~1.3A
–SDIM0310	0.47~10μH	5.8~1.1A
–SDIM0312	0.33~10μH	7.0~1.3A
–SDIM0410	0.47~10μH	7.0~1.5A
–SDIM0412	0.47~10μH	8.0~1.7A

– Test equipment:

L: HP4284A LCR meter

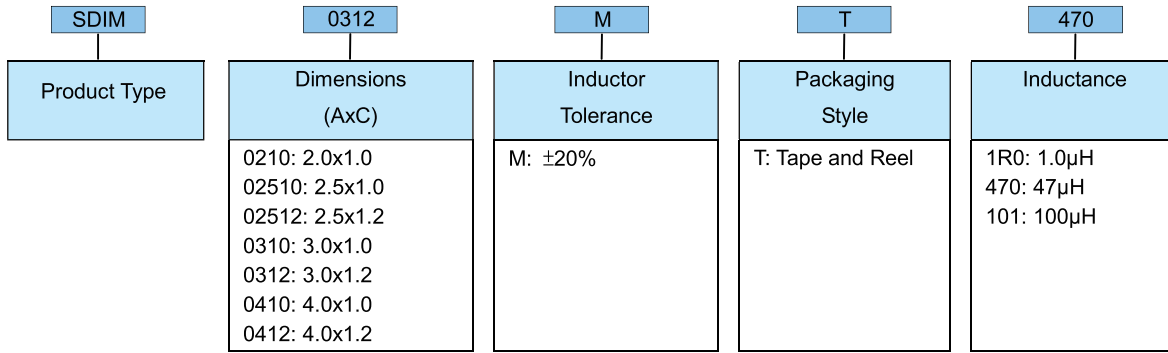
DCR: Milli-ohm meter

– Electrical specifications at 25°C

Characteristics

- Saturation Rated Current (I sat): The DC current when the inductance becomes 30% lower than its initial value. (Ta=25°C)
- Temperature Rise Current (I rms): The actual current when temperature of coil becomes ΔT40°C
- Measurement board data
 - Irms1: Material : FR4
 - Board dimensions : 100 X 50 X 1.6t mm
 - Pattern dimensions: 45 X 30 mm (Double side board)
 - Pattern thickness : 50 μm
 - Irms2: Material : FR4
 - Board dimensions : 100 X 50 X 1.6t mm
 - Pattern dimensions: 45 X 45 mm (Double side board)
 - Pattern thickness : 70 μm
- Operating temperature range: -40~125°C(Including self - temperature rise)
- Storage Temperature: <40°C; Humidity 60%RH

Product Identification



Electrical Characteristics

SDIM0210 Type

Part No.	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms 1 (A) max.	I rms 2 (A) max.
SDIM0210MTR24	0.24	$\pm 20\%$	1MHz, 1V	0.020	6.5	5.1	5.5
SDIM0210MTR33	0.33	$\pm 20\%$	1MHz, 1V	0.023	5.0	5.0	5.2
SDIM0210MTR47	0.47	$\pm 20\%$	1MHz, 1V	0.029	4.5	4.3	4.7
SDIM0210MTR68	0.68	$\pm 20\%$	1MHz, 1V	0.044	4.4	3.5	3.8
SDIM0210MT1R0	1.0	$\pm 20\%$	1MHz, 1V	0.060	4.0	2.9	3.1
SDIM0210MT1R5	1.5	$\pm 20\%$	1MHz, 1V	0.082	2.8	2.5	2.7
SDIM0210MT2R2	2.2	$\pm 20\%$	1MHz, 1V	0.120	2.4	2.0	2.1
SDIM0210MT3R3	3.3	$\pm 20\%$	1MHz, 1V	0.192	1.7	1.6	1.8
SDIM0210MT4R7	4.7	$\pm 20\%$	1MHz, 1V	0.216	1.4	1.4	1.6

SDIM02510 Type

Part No.	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms 1 (A) max.	I rms 2 (A) max.
SDIM02510MTR24	0.24	$\pm 20\%$	1MHz, 1V	0.022	8.0	5.0	5.5
SDIM02510MTR33	0.33	$\pm 20\%$	1MHz, 1V	0.028	6.5	4.8	5.1
SDIM02510MTR47	0.47	$\pm 20\%$	1MHz, 1V	0.035	5.9	4.2	4.8
SDIM02510MTR68	0.68	$\pm 20\%$	1MHz, 1V	0.040	4.6	3.8	4.0
SDIM02510MT1R0	1.0	$\pm 20\%$	1MHz, 1V	0.053	4.3	3.1	3.4
SDIM02510MT1R5	1.5	$\pm 20\%$	1MHz, 1V	0.074	3.1	2.8	3.0
SDIM02510MT2R2	2.2	$\pm 20\%$	1MHz, 1V	0.093	2.3	2.3	2.5
SDIM02510MT4R7	4.7	$\pm 20\%$	1MHz, 1V	0.216	1.4	1.5	1.6

SDIM02512 Type

Part No.	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms 1 (A) max.	I rms 2 (A) max.
SDIM02512MTR33	0.33	$\pm 20\%$	1MHz, 1V	0.021	7.2	5.0	5.5
SDIM02512MTR47	0.47	$\pm 20\%$	1MHz, 1V	0.023	6.7	4.5	5.0
SDIM02512MTR68	0.68	$\pm 20\%$	1MHz, 1V	0.032	4.9	3.8	4.5
SDIM02512MT1R0	1.0	$\pm 20\%$	1MHz, 1V	0.040	4.7	3.3	3.8
SDIM02512MT1R5	1.5	$\pm 20\%$	1MHz, 1V	0.060	3.9	3.0	3.5
SDIM02512MT2R2	2.2	$\pm 20\%$	1MHz, 1V	0.084	3.0	2.2	2.6
SDIM02512MT3R3	3.3	$\pm 20\%$	1MHz, 1V	0.100	1.3	1.2	1.4

Electrical Characteristics

SDIM0310 Type

Part No.	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms (A) max.
SDIM0310MTR47	0.47	±20%	1MHz, 1V	0.039	5.8	3.5
SDIM0310MTR68	0.68	±20%	1MHz, 1V	0.058	5.0	3.0
SDIM0310MT1R0	1.0	±20%	1MHz, 1V	0.080	4.6	2.5
SDIM0310MT1R5	1.5	±20%	1MHz, 1V	0.100	3.5	2.3
SDIM0310MT2R2	2.2	±20%	1MHz, 1V	0.135	2.7	2.0
SDIM0310MT3R3	3.3	±20%	1MHz, 1V	0.238	2.2	1.5
SDIM0310MT4R7	4.7	±20%	1MHz, 1V	0.315	1.9	1.3
SDIM0310MT6R8	6.8	±20%	1MHz, 1V	0.360	1.4	1.1
SDIM0310MT100	10	±20%	1MHz, 1V	0.420	1.1	1.0

SDIM0312 Type

Part No.	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms (A) max.
SDIM0312MTR33	0.33	±20%	1MHz, 1V	0.024	7.0	4.5
SDIM0312MTR47	0.47	±20%	1MHz, 1V	0.030	6.5	4.2
SDIM0312MTR68	0.68	±20%	1MHz, 1V	0.038	5.5	3.7
SDIM0312MT1R0	1.0	±20%	1MHz, 1V	0.049	4.5	3.5
SDIM0312MT1R5	1.5	±20%	1MHz, 1V	0.072	4.0	3.0
SDIM0312MT2R2	2.2	±20%	1MHz, 1V	0.108	3.0	2.3
SDIM0312MT3R3	3.3	±20%	1MHz, 1V	0.156	2.5	1.7
SDIM0312MT4R7	4.7	±20%	1MHz, 1V	0.216	2.3	1.5
SDIM0312MT6R8	6.8	±20%	1MHz, 1V	0.300	1.9	1.3
SDIM0312MT100	10	±20%	1MHz, 1V	0.350	1.3	1.2

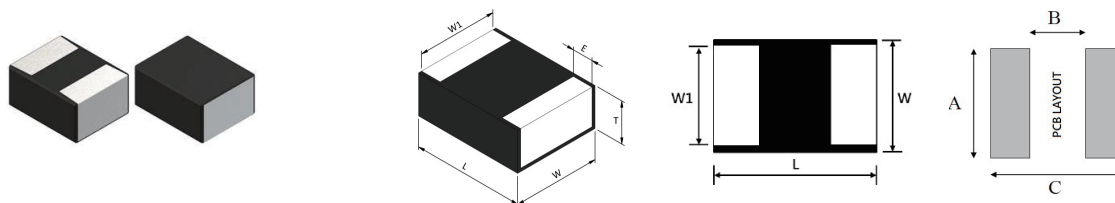
SDIM0410 Type

Part No.	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms (A) max.
SDIM0410MTR47	0.47	±20%	100KHz, 1V	0.045	7.0	4.0
SDIM0410MTR68	0.68	±20%	100KHz, 1V	0.060	6.0	3.5
SDIM0410MT1R0	1.0	±20%	100KHz, 1V	0.069	5.0	3.2
SDIM0410MT1R5	1.5	±20%	100KHz, 1V	0.075	3.5	3.0
SDIM0410MT2R2	2.2	±20%	100KHz, 1V	0.090	2.6	2.5
SDIM0410MT3R3	3.3	±20%	100KHz, 1V	0.140	2.3	2.0
SDIM0410MT4R7	4.7	±20%	100KHz, 1V	0.240	2.0	1.7
SDIM0410MT6R8	6.8	±20%	100KHz, 1V	0.360	1.8	1.4
SDIM0410MT100	10	±20%	100KHz, 1V	0.510	1.5	1.2

SDIM0412 Type

Part No.	L (µH)	Tolerance	Test Condition	DCR (Ω) max.	I sat (A) max.	I rms (A) max.
SDIM0412MTR47	0.47	±20%	100KHz, 1V	0.033	8.0	5.0
SDIM0412MTR68	0.68	±20%	100KHz, 1V	0.043	7.0	4.0
SDIM0412MT1R0	1.0	±20%	100KHz, 1V	0.050	5.5	3.5
SDIM0412MT1R5	1.5	±20%	100KHz, 1V	0.060	4.7	3.3
SDIM0412MT2R2	2.2	±20%	100KHz, 1V	0.078	4.0	3.0
SDIM0412MT3R3	3.3	±20%	100KHz, 1V	0.120	3.3	2.5
SDIM0412MT4R7	4.7	±20%	100KHz, 1V	0.145	2.7	2.0
SDIM0412MT6R8	6.8	±20%	100KHz, 1V	0.180	1.9	1.8
SDIM0412MT100	10	±20%	100KHz, 1V	0.330	1.7	1.4

Wire Wound Type Power Inductor – MLP(H) Series



Dimensions

Unit: mm

Type	Size (Inch)	L	W	W1	T	E	A	B	C
MLP03	0803	2.00±0.20	1.20±0.20	-	0.80 max	0.50±0.30	1.2	0.9	2.0
MLP05	0805	2.00±0.20	1.20±0.20	1.00±0.20	1.00 max	0.50±0.20	1.2	0.9	2.0
MLP06	0806	2.00±0.20	1.60±0.20	1.40±0.20	1.00 max	0.50±0.20	1.6	0.9	2.0
MLPH06	0806	2.00±0.20	1.60±0.20	1.40±0.20	1.00 max	0.60±0.30	1.6	0.9	2.0
MLP(H)04	1004	2.50±0.20	2.00±0.20	1.80±0.20	1.00 max	0.60±0.30	2.0	1.2	2.8
MLP(H)08	1008	2.50±0.20	2.00±0.20	1.80±0.20	1.20 max	0.60±0.30	2.0	1.2	2.8
MLP10	1310	3.20±0.20	2.50±0.20	2.30±0.20	1.10±0.10	0.60±0.20	2.5 typ	1.7 typ	3.2 typ

Features

- High saturation current realized by material properties and structure design
- Low DC resistance to achieve high conversion efficiency and lower temperature rising
- Magnetically shielded structure to accomplish high resolution in EMC protection
- Halogen free, Lead Free, RoHS Compliance
- The moisture sensitivity level (MSL) of products is level 1

Applications

MPL(H)06/04/08/10

- Smart phone, PAD
- Thin-type power supply module
- DC-DC Converters

MPL03/05

- Mobile Phones
- HDDs, DSCs, Pads
- LCD, LED Display, etc.

Characteristics for MLP(H)05/06/04/08/10

- Isat: DC current that will cause Li to drop approximately 30%
- Irms: DC current that will cause an approximately $\Delta T 40^{\circ}\text{C}$
- The rated current value is following either Isat (max.) or Irms (max), which value is lower one
- The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. PCB land pattern, trace size -thick, circuit design and proximity to other components are all the factors will affect the temperature performance of the device. Therefore, it should be approved in application conditions and end product.
- Rated voltage: 20V DC (max.)
- Operating temperature range: $-40 \sim 125^{\circ}$ (including self-temperature rising)
- Test equipment:
 - L: HP4285A LCR meter or equivalent
 - DCR: Micro-ohm meter RM3542 or equivalent
- All test referenced to 25°C ambient

Characteristics for MLP03

- Isat: DC current that will cause Li to drop approximately 30%
- Irms: DC current that will cause an approximately $\Delta T 40^{\circ}\text{C}$
- Operating temperature range: $-40 \sim 125^{\circ}$ (including self-temperature rising)
- Test equipment:
 - L: HP4285A LCR meter or equivalent
 - DCR: Micro-ohm meter RM3542 or equivalent
- All test referenced to 26°C ambient

Part Numbering

MLP	08	M	T	1R0
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Inductance
MLP: Standard MLPH: High Current	03: 0803 05: 0805 06: 0806 04: 1004 08: 1008 10: 1310	M: $\pm 20\%$	T: Taping Reel	1R0: 1.0uH 1R5: 1.5uH 2R2: 2.2uH

Standard Electrical Specifications

MLP03(0803) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		Irms(A)	
				typ.	max.	typ.	max.	typ.	max.
R24	0.24	±20%	1MHz, 1V	22	26	6.70	6.00	4.70	4.10
R47	0.47	±20%	1MHz, 1V	29	35	4.60	4.20	4.00	3.70

MLP05(0805) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat		Irms		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
1R0	1.0	±20%	1MHz, 1V	58	67	3.40	3.10	3.00	2.70	>120	25

MLP06(0806) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		Irms(A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R24	0.24	±20%	1MHz, 1V	17	21	5.60	5.05	5.00	4.50	>120	30
R33	0.33	±20%	1MHz, 1V	24	29	5.00	4.50	4.10	3.69	>120	30
R47	0.47	±20%	1MHz, 1V	33	40	4.40	4.00	3.50	3.15	>120	30
R68	0.68	±20%	1MHz, 1V	41	49	3.70	3.33	3.40	3.06	>120	30
1R0	1.0	±20%	1MHz, 1V	60	69	2.90	2.61	2.60	2.26	100	30
1R5	1.5	±20%	1MHz, 1V	114	129	2.50	2.25	2.00	1.81	75	30
2R2	2.2	±20%	1MHz, 1V	135	150	1.90	1.71	1.70	1.50	65	30

MLP04(1004) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		Irms(A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R22	0.22	±20%	1MHz, 1V	9	12.5	7.90	7.20	5.90	5.30	>120	30
R33	0.33	±20%	1MHz, 1V	21	26	6.60	6.00	4.40	4.00	>120	30
R47	0.47	±20%	1MHz, 1V	27	32	5.00	4.50	3.90	3.51	>120	30
R68	0.68	±20%	1MHz, 1V	37	44	4.30	3.87	3.40	3.06	110	30
1R0	1.0	±20%	1MHz, 1V	45	54	3.50	3.15	3.00	2.70	95	30
1R5	1.5	±20%	1MHz, 1V	76	91	2.60	2.34	2.50	2.25	75	30
2R2	2.2	±20%	1MHz, 1V	99	119	2.40	2.16	2.30	2.07	60	30
4R7	4.7	±20%	1MHz, 1V	220	262	1.80	1.62	1.36	1.22	35	30

MLP08(1008) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		Irms(A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R47	0.47	±20%	1MHz, 1V	21	25	5.30	4.95	4.60	4.18	>120	30
R68	0.68	±20%	1MHz, 1V	29	35	5.00	4.63	3.70	3.36	100	30
1R0	1.0	±20%	1MHz, 1V	41	49	4.40	4.04	3.50	3.18	85	30
1R5	1.5	±20%	1MHz, 1V	64	77	3.20	2.91	2.50	2.27	75	30
2R2	2.2	±20%	1MHz, 1V	85	98	3.00	2.73	2.27	2.06	65	30
3R3	3.3	±20%	1MHz, 1V	125	150	2.10	1.80	2.00	1.80	40	30
4R7	4.7	±20%	1MHz, 1V	196	235	1.90	1.58	1.61	1.40	40	30

MLP10(1310) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		Irms(A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R47	0.47	±20%	1MHz, 1V	15	19	7.70	7.00	5.80	5.20	>120	25
R68	0.68	±20%	1MHz, 1V	16	20	6.20	5.80	5.30	4.70	100	25
1R0	1.0	±20%	1MHz, 1V	25	32	5.50	5.00	4.90	4.40	85	25
1R5	1.5	±20%	1MHz, 1V	45	54	4.80	4.30	3.40	3.10	65	25
2R2	2.2	±20%	1MHz, 1V	60	75	4.00	3.50	3.00	2.70	50	25
3R3	3.3	±20%	1MHz, 1V	95	109	3.40	2.90	2.30	2.00	40	25
4R7	4.7	±20%	1MHz, 1V	150	168	2.80	2.40	1.70	1.40	35	25
6R8	6.8	±20%	1MHz, 1V	190	210	2.40	2.10	1.50	1.20	30	25

High Current Electrical Specifications

MLPH06(0806) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		I _{rms} (A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R10	0.10	±20%	1MHz, 1V	7	11	12.20	11.00	9.50	9.00	>120	30
R15	0.15	±20%	1MHz, 1V	10	16	10.00	9.00	7.50	7.00	>120	30
R22	0.22	±20%	1MHz, 1V	15	19	7.90	7.00	6.50	6.00	>120	30
R24	0.24	±20%	1MHz, 1V	17	20	6.80	6.30	5.80	5.30	>120	30
R33	0.33	±20%	1MHz, 1V	21	26	6.70	6.10	4.70	4.20	>120	30
R47	0.47	±20%	1MHz, 1V	23	30	6.10	5.30	4.50	4.10	>120	30
R68	0.68	±20%	1MHz, 1V	40	47	4.70	4.20	4.00	3.50	>120	30
1R0	1.0	±20%	1MHz, 1V	48	60	3.90	3.30	3.20	3.00	90	30
1R5	1.5	±20%	1MHz, 1V	86	99	3.40	3.10	2.40	2.20	80	30
2R2	2.2	±20%	1MHz, 1V	117	140	2.60	2.45	2.20	2.00	60	30
3R3	3.3	±20%	1MHz, 1V	200	220	1.90	1.65	1.80	1.50	40	30
4R7	4.7	±20%	1MHz, 1V	240	288	1.80	1.60	1.30	1.10	40	30

MLPH04(1004) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		I _{rms} (A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R22	0.22	±20%	1MHz, 1V	10	13.5	10.50	9.00	6.90	6.30	>120	30
R24	0.24	±20%	1MHz, 1V	11.5	14.5	8.80	8.00	6.60	6.00	>120	30
R33	0.33	±20%	1MHz, 1V	17	22	7.80	7.00	5.60	4.80	>120	30
R47	0.47	±20%	1MHz, 1V	23	29	6.60	6.00	5.20	4.40	>120	30
R68	0.68	±20%	1MHz, 1V	30	36	5.50	5.00	4.30	3.70	90	30
1R0	1.0	±20%	1MHz, 1V	41	52	4.40	4.00	3.40	3.10	70	30
1R5	1.5	±20%	1MHz, 1V	62	72	3.80	3.40	2.90	2.50	60	30
2R2	2.2	±20%	1MHz, 1V	68	110	3.30	3.00	2.40	2.10	50	30
3R3	3.3	±20%	1MHz, 1V	140	160	2.50	2.20	1.90	1.60	40	30
4R7	4.7	±20%	1MHz, 1V	200	240	2.20	1.90	1.60	1.40	30	30

MLPH08(1008) Wire Wound Type Power Inductor

Codes	Inductance (uH)	Tolerance	Test Condition	DCR(mΩ)		Isat(A)		I _{rms} (A)		SRF (MHz) typ.	Q Typ.
				typ.	max.	typ.	max.	typ.	max.		
R47	0.47	±20%	1MHz, 1V	16	22	6.80	6.20	5.80	4.90	>120	30
1R0	1.0	±20%	1MHz, 1V	36	44	4.80	4.30	3.90	3.30	70	30
1R5	1.5	±20%	1MHz, 1V	54	63	4.00	3.50	2.90	2.50	60	30
2R2	2.2	±20%	1MHz, 1V	74	89	3.50	3.20	2.50	2.20	50	30
3R3	3.3	±20%	1MHz, 1V	116	130	2.80	2.50	2.10	1.80	40	30
4R7	4.7	±20%	1MHz, 1V	160	180	2.20	2.00	1.80	1.50	35	30

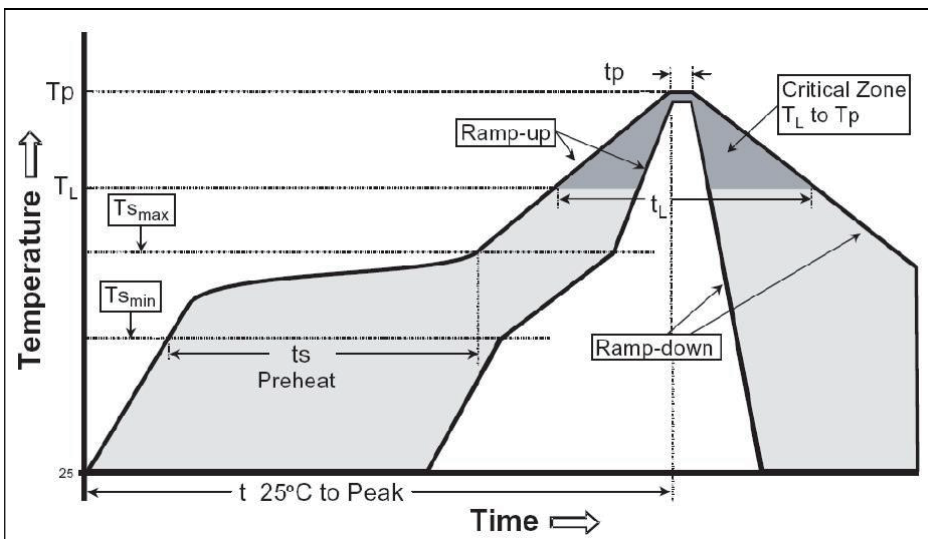
Environmental Characteristics

Item	Requirement	Test Method
Resistance to Soldering Heat	Appearance: No damage More than 95% of the terminal. Electrode should be covered with solder. Inductance: within $\pm 20\%$ of initial value	Flux: Rosin Solder Temperature: $260 \pm 5^\circ\text{C}$ Immersion Time: 10 ± 1 sec.
Adhesive Test	No mechanical damage Soldering the products on PCB after the pulling test force $> 5\text{N}$	Reflow temperature: 245°C it shall be soldered on the substrate applying direction parallel to the substrate Apply force(F) : 5 N Test time : 10 sec
Temperature Cycle	No mechanical damage Inductance: within $\pm 20\%$ of initial value	Temperature: $-50 \sim 125^\circ\text{C}$ for 30 minutes each Cycle: 500cycles Measurement: at ambient temperature 24 hours after test completion
Dry Heat Test		Temperature: $85 \pm 2^\circ\text{C}$ Testing time: 500 hrs Applied current: full rated current Measurement: at ambient temperature 24 hours after test completion
Humidity Test		Temperature: $60 \pm 2^\circ\text{C}$, Humidity: 90~95% RH Testing time: 500 hrs Applied current: full rated current Measurement: at ambient temperature 24 hours after test completion

Storage Temperature: $5 \sim 40^\circ\text{C}$; Humidity: $< 65\% \text{RH}$

Storage Time: 12 months max

Recommendable Reflow Soldering

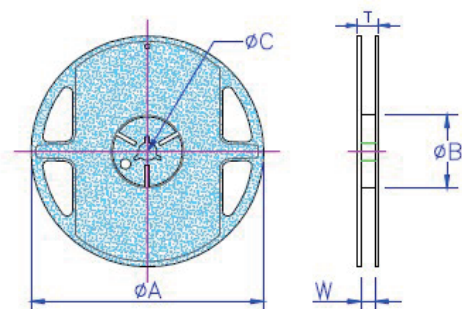


Reference IPC-020c-5-1

Profile Feature	Pb-Free Assembly
Average Ramp Rate (Ts max to Tp)	3 °C/second max.
Preheat	
Temperature Min (T _{smin})	150 °C
Temperature Min (T _{smax})	200 °C
Time (T _{smin} to T _{smin})	60-180 seconds
Time maintained above:	
Temperature (T _L)	217 °C
Time (t _L)	60-150 seconds
Peak temperature (Tp)	260°C +0/-5°C
Time within 5 °C of actual Peak Temperature (Tp)	20-40 seconds
Ramp-Down Rate	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

■ Packaging

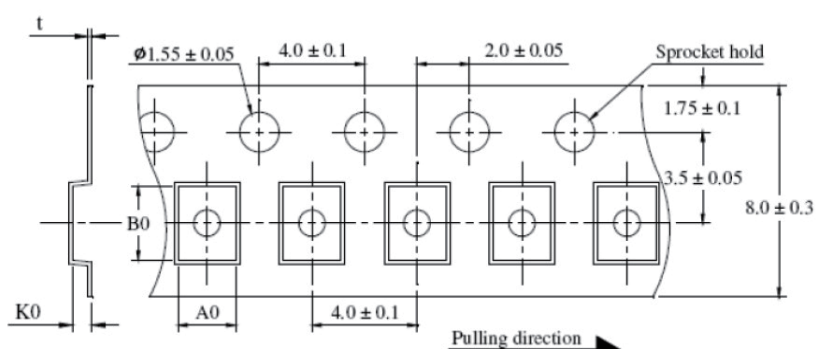
Reel Specifications



Unit: mm

Type	A	B	C	W	T	Quantity (EA)
MLP03	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000
MLP05	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000
MLP(H)06	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000
MLP(H)04	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000
MLP(H)08	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000
MLP10	178±1	60.0±0.5	13.0±0.2	9.00±0.5	12.0±0.15	3,000

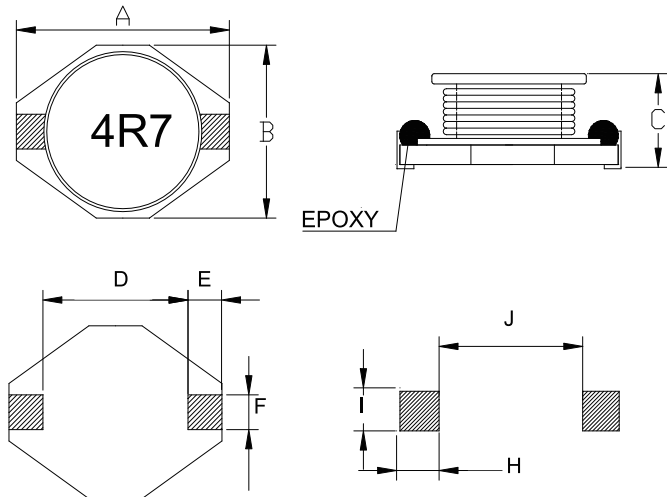
Tape Specifications



Unit: mm

Type	A0	B0	K0	t
MLP03	1.45±0.10	2.20±0.10	1.12±0.10	0.22±0.05
MLP05	1.45±0.10	2.20±0.10	1.12±0.10	0.22±0.05
MLPH06	1.82±0.05	2.23±0.05	1.15±0.05	0.22±0.05
MLPH04	2.25±0.05	2.80±0.10	1.35±0.10	0.22±0.05
MLPH08	2.25±0.05	2.80±0.10	1.35±0.10	0.22±0.05
MLP10	2.80±0.10	3.45±0.10	1.34±0.10	0.23±0.05

SMD Power Inductor – PD



Features

- High power, High saturation inductors
- Ideal inductors for DC-DC converters in notebook computer, PDAs, Step-up or step-down converters, flash memory programmers, etc.
- PD1608 used ceramic base with gold-plating
- The others used LCP plastic base

Applications

- Portable Telephones
- Personal Computers
- DC/DC Converters, etc.
- Other Various Electronic Appliances

Characteristics

- Saturation Rated Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Dimensions

Unit: mm

Type	A max.	B max.	C max.	D	E	F	H	I	J
PD1608	6.60	4.45	2.92	4.32	1.02	1.27	1.40	3.56	4.06
PD3308	12.95	9.40	3.00	7.62	2.54	2.54	2.92	2.79	7.37
PD3316	12.95	9.40	5.21	7.62	2.54	2.54	2.92	2.79	7.37
PD3340	12.95	9.40	11.43	7.62	2.54	2.54	2.92	2.79	7.37
PD5022	18.54	15.24	7.11	12.7	2.54	2.54	2.92	2.79	12.45

Inductance and rated current ranges

- PD1608 1.0μH~1000μH 2.9~0.10A
- PD3308 1.0μH~1000μH 5.15~0.10A
- PD3316 0.68μH~10000μH 11~0.10A
- PD3340 0.47μH~1000μH 20~0.80A
- PD5022 1.0μH~1000μH 20~1.00A
- Test equipment:
 L: HP4284A LCR meter
 DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

PD	1608	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	1608: 6.60×4.45×2.92 3308: 12.95×9.40×3.00 3316: 12.95×9.40×5.21 3340: 12.95×9.40×11.43 5022: 18.54×15.24×7.11	M: ±20%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

■ Electrical Characteristics

PD1608 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PD1608MT1R0	1.0	±20%	100KHz, 0.1V	0.05	2.90
PD1608MT1R5	1.5	±20%	100KHz, 0.1V	0.06	2.60
PD1608MT2R2	2.2	±20%	100KHz, 0.1V	0.07	2.30
PD1608MT3R3	3.3	±20%	100KHz, 0.1V	0.08	2.00
PD1608MT4R7	4.7	±20%	100KHz, 0.1V	0.09	1.50
PD1608MT6R8	6.8	±20%	100KHz, 0.1V	0.13	1.20
PD1608MT8R2	8.2	±20%	100KHz, 0.1V	0.16	1.15
PD1608MT100	10	±20%	100KHz, 0.1V	0.16	1.10
PD1608MT150	15	±20%	100KHz, 0.1V	0.23	0.90
PD1608MT220	22	±20%	100KHz, 0.1V	0.37	0.70
PD1608MT330	33	±20%	100KHz, 0.1V	0.51	0.58
PD1608MT470	47	±20%	100KHz, 0.1V	0.64	0.50
PD1608MT680	68	±20%	100KHz, 0.1V	0.86	0.40
PD1608MT101	100	±20%	100KHz, 0.1V	1.27	0.31
PD1608MT151	150	±20%	100KHz, 0.1V	2.00	0.27
PD1608MT221	220	±20%	100KHz, 0.1V	3.11	0.22
PD1608MT331	330	±20%	100KHz, 0.1V	3.80	0.18
PD1608MT471	470	±20%	100KHz, 0.1V	6.00	0.14
PD1608MT681	680	±20%	100KHz, 0.1V	10.5	0.12
PD1608MT102	1000	±20%	100KHz, 0.1V	13.8	0.10

PD3308 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PD3308MT1R0	1.0	±20%	100KHz, 0.1V	0.024	5.15
PD3308MT4R7	4.7	±20%	100KHz, 0.1V	0.036	4.20
PD3308MT6R8	6.8	±20%	100KHz, 0.1V	0.060	3.90
PD3308MT8R2	8.2	±20%	100KHz, 0.1V	0.080	2.42
PD3308MT100	10	±20%	100KHz, 0.1V	0.110	2.40
PD3308MT150	15	±20%	100KHz, 0.1V	0.120	2.30
PD3308MT220	22	±20%	100KHz, 0.1V	0.180	1.80
PD3308MT330	33	±20%	100KHz, 0.1V	0.250	1.60
PD3308MT470	47	±20%	100KHz, 0.1V	0.320	1.30
PD3308MT680	68	±20%	100KHz, 0.1V	0.540	1.10
PD3308MT101	100	±20%	100KHz, 0.1V	0.690	0.87
PD3308MT151	150	±20%	100KHz, 0.1V	0.940	0.74
PD3308MT221	220	±20%	100KHz, 0.1V	1.600	0.56
PD3308MT331	330	±20%	100KHz, 0.1V	2.150	0.50
PD3308MT471	470	±20%	100KHz, 0.1V	3.300	0.40
PD3308MT681	680	±20%	100KHz, 0.1V	4.400	0.33
PD3308MT821	820	±20%	100KHz, 0.1V	5.800	0.15
PD3308MT102	1000	±20%	100KHz, 0.1V	8.400	0.10

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PD3316 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PD3316MTR68	0.68	$\pm 20\%$	100KHz, 0.1V	0.008	11.0
PD3316MT1R0	1.0	$\pm 20\%$	100KHz, 0.1V	0.009	9.00
PD3316MT1R2	1.2	$\pm 20\%$	100KHz, 0.1V	0.010	8.50
PD3316MT1R5	1.5	$\pm 20\%$	100KHz, 0.1V	0.010	8.00
PD3316MT1R8	1.8	$\pm 20\%$	100KHz, 0.1V	0.011	7.50
PD3316MT2R2	2.2	$\pm 20\%$	100KHz, 0.1V	0.012	7.10
PD3316MT2R7	2.7	$\pm 20\%$	100KHz, 0.1V	0.014	6.60
PD3316MT3R3	3.3	$\pm 20\%$	100KHz, 0.1V	0.015	6.50
PD3316MT4R7	4.7	$\pm 20\%$	100KHz, 0.1V	0.018	5.50
PD3316MT5R6	5.6	$\pm 20\%$	100KHz, 0.1V	0.025	4.80
PD3316MT6R8	6.8	$\pm 20\%$	100KHz, 0.1V	0.027	4.70
PD3316MT8R2	8.2	$\pm 20\%$	100KHz, 0.1V	0.036	4.10
PD3316MT100	10	$\pm 20\%$	100KHz, 0.1V	0.038	3.90
PD3316MT120	12	$\pm 20\%$	100KHz, 0.1V	0.044	3.30
PD3316MT150	15	$\pm 20\%$	100KHz, 0.1V	0.046	3.10
PD3316MT180	18	$\pm 20\%$	100KHz, 0.1V	0.066	2.80
PD3316MT220	22	$\pm 20\%$	100KHz, 0.1V	0.085	2.60
PD3316MT270	27	$\pm 20\%$	100KHz, 0.1V	0.095	2.10
PD3316MT330	33	$\pm 20\%$	100KHz, 0.1V	0.100	2.00
PD3316MT390	39	$\pm 20\%$	100KHz, 0.1V	0.130	1.80
PD3316MT470	47	$\pm 20\%$	100KHz, 0.1V	0.140	1.70
PD3316MT560	56	$\pm 20\%$	100KHz, 0.1V	0.190	1.60
PD3316MT680	68	$\pm 20\%$	100KHz, 0.1V	0.200	1.50
PD3316MT820	82	$\pm 20\%$	100KHz, 0.1V	0.260	1.30
PD3316MT101	100	$\pm 20\%$	100KHz, 0.1V	0.280	1.25
PD3316KT101-1	100	$\pm 10\%$	100KHz, 0.1V	0.280	1.50
PD3316MT121	120	$\pm 20\%$	100KHz, 0.1V	0.360	1.05
PD3316MT151	150	$\pm 20\%$	100KHz, 0.1V	0.400	1.05
PD3316MT181	180	$\pm 20\%$	100KHz, 0.1V	0.540	0.85
PD3316MT221	220	$\pm 20\%$	100KHz, 0.1V	0.610	0.82
PD3316MT271	270	$\pm 20\%$	100KHz, 0.1V	0.840	0.65
PD3316MT331	330	$\pm 20\%$	100KHz, 0.1V	1.020	0.62
PD3316MT391	390	$\pm 20\%$	100KHz, 0.1V	1.250	0.55
PD3316MT471	470	$\pm 20\%$	100KHz, 0.1V	1.270	0.52
PD3316MT561	560	$\pm 20\%$	100KHz, 0.1V	1.850	0.45
PD3316MT681	680	$\pm 20\%$	100KHz, 0.1V	2.020	0.42
PD3316MT821	820	$\pm 20\%$	100KHz, 0.1V	2.530	0.38
PD3316MT102	1000	$\pm 20\%$	100KHz, 0.1V	3.000	0.35
PD3316KT102-2	1000	$\pm 10\%$	1KHz, 0.25V	3.900	0.35
PD3316KT152-1	1500	$\pm 10\%$	1KHz, 0.25V	6.300	0.30
PD3316KT222-1	2200	$\pm 10\%$	1KHz, 0.25V	8.200	0.24
PD3316MT103-1	10000	$\pm 20\%$	1KHz, 0.25V	39.00	0.10

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

PD3340 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PD3340MTR47	0.47	±20%	100KHz, 0.1V	0.008	20.0
PD3340MTR82	0.82	±20%	100KHz, 0.1V	0.009	20.0
PD3340MT1R2	1.2	±20%	100KHz, 0.1V	0.010	20.0
PD3340MT1R5	1.5	±20%	100KHz, 0.1V	0.010	20.0
PD3340MT2R2	2.2	±20%	100KHz, 0.1V	0.012	18.5
PD3340MT3R5	3.5	±20%	100KHz, 0.1V	0.015	18.0
PD3340MT4R7	4.7	±20%	100KHz, 0.1V	0.020	13.0
PD3340MT5R6	5.6	±20%	100KHz, 0.1V	0.022	12.0
PD3340MT6R8	6.8	±20%	100KHz, 0.1V	0.030	10.0
PD3340MT8R2	8.2	±20%	100KHz, 0.1V	0.033	9.00
PD3340MT100	10	±20%	100KHz, 0.1V	0.040	8.00
PD3340MT120	12	±20%	100KHz, 0.1V	0.042	7.20
PD3340MT150	15	±20%	100KHz, 0.1V	0.050	7.00
PD3340MT180	18	±20%	100KHz, 0.1V	0.052	5.70
PD3340MT220	22	±20%	100KHz, 0.1V	0.066	5.50
PD3340MT270	27	±20%	100KHz, 0.1V	0.072	4.20
PD3340MT330	33	±20%	100KHz, 0.1V	0.080	4.00
PD3340MT390	39	±20%	100KHz, 0.1V	0.092	3.90
PD3340MT470	47	±20%	100KHz, 0.1V	0.110	3.80
PD3340MT560	56	±20%	100KHz, 0.1V	0.150	3.20
PD3340MT680	68	±20%	100KHz, 0.1V	0.170	3.00
PD3340MT820	82	±20%	100KHz, 0.1V	0.200	2.60
PD3340MT101	100	±20%	100KHz, 0.1V	0.220	2.50
PD3340MT121	120	±20%	100KHz, 0.1V	0.320	2.20
PD3340MT151	150	±20%	100KHz, 0.1V	0.340	2.00
PD3340MT181	180	±20%	100KHz, 0.1V	0.420	1.80
PD3340MT221	220	±20%	100KHz, 0.1V	0.440	1.60
PD3340MT271	270	±20%	100KHz, 0.1V	0.600	1.30
PD3340MT331	330	±20%	100KHz, 0.1V	0.700	1.20
PD3340MT391	390	±20%	100KHz, 0.1V	0.850	1.10
PD3340MT471	470	±20%	100KHz, 0.1V	0.950	1.00
PD3340MT561	560	±20%	100KHz, 0.1V	1.100	1.00
PD3340MT681	680	±20%	100KHz, 0.1V	1.200	1.00
PD3340MT821	820	±20%	100KHz, 0.1V	1.500	0.82
PD3340MT102	1000	±20%	100KHz, 0.1V	2.000	0.80

■ Viking is capable to design according to customer special requirement

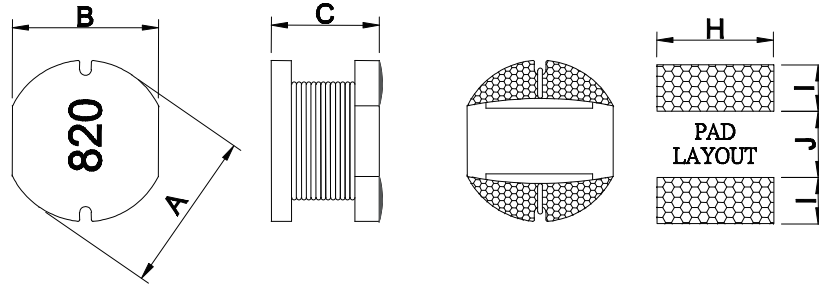
■ Electrical Characteristics

PD5022 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PD5022MT1R0	1.0	$\pm 20\%$	100KHz, 0.1V	0.009	20.00
PD5022MT2R2	2.2	$\pm 20\%$	100KHz, 0.1V	0.014	16.00
PD5022MT3R3	3.3	$\pm 20\%$	100KHz, 0.1V	0.018	14.00
PD5022MT4R7	4.7	$\pm 20\%$	100KHz, 0.1V	0.019	13.00
PD5022MT5R6	5.6	$\pm 20\%$	100KHz, 0.1V	0.020	12.00
PD5022MT6R8	6.8	$\pm 20\%$	100KHz, 0.1V	0.022	10.60
PD5022MT8R2	8.2	$\pm 20\%$	100KHz, 0.1V	0.024	10.30
PD5022MT100	10	$\pm 20\%$	100KHz, 0.1V	0.031	10.00
PD5022MT120	12	$\pm 20\%$	100KHz, 0.1V	0.034	8.20
PD5022MT150	15	$\pm 20\%$	100KHz, 0.1V	0.036	8.00
PD5022MT180	18	$\pm 20\%$	100KHz, 0.1V	0.045	7.20
PD5022MT220	22	$\pm 20\%$	100KHz, 0.1V	0.047	7.00
PD5022MT270	27	$\pm 20\%$	100KHz, 0.1V	0.056	5.80
PD5022MT330	33	$\pm 20\%$	100KHz, 0.1V	0.066	5.50
PD5022MT390	39	$\pm 20\%$	100KHz, 0.1V	0.080	4.60
PD5022MT470	47	$\pm 20\%$	100KHz, 0.1V	0.095	4.50
PD5022MT560	56	$\pm 20\%$	100KHz, 0.1V	0.128	3.70
PD5022MT680	68	$\pm 20\%$	100KHz, 0.1V	0.130	3.50
PD5022MT820	82	$\pm 20\%$	100KHz, 0.1V	0.180	3.10
PD5022MT101	100	$\pm 20\%$	100KHz, 0.1V	0.190	3.00
PD5022MT121	120	$\pm 20\%$	100KHz, 0.1V	0.240	2.80
PD5022MT151	150	$\pm 20\%$	100KHz, 0.1V	0.250	2.60
PD5022MT181	180	$\pm 20\%$	100KHz, 0.1V	0.360	2.50
PD5022MT221	220	$\pm 20\%$	100KHz, 0.1V	0.380	2.40
PD5022MT271	270	$\pm 20\%$	100KHz, 0.1V	0.520	2.00
PD5022MT331	330	$\pm 20\%$	100KHz, 0.1V	0.560	1.90
PD5022MT391	390	$\pm 20\%$	100KHz, 0.1V	0.720	1.50
PD5022MT471	470	$\pm 20\%$	100KHz, 0.1V	0.850	1.40
PD5022MT561	560	$\pm 20\%$	100KHz, 0.1V	1.080	1.30
PD5022MT681	680	$\pm 20\%$	100KHz, 0.1V	1.100	1.20
PD5022MT821	820	$\pm 20\%$	100KHz, 0.1V	1.600	1.03
PD5022MT102	1000	$\pm 20\%$	100KHz, 0.1V	1.800	1.00

■ Viking is capable to design according to customer special requirement

SMD Power Inductor – PCD



Dimensions

Unit: mm

Type	A	B	C	H	I	J
PCD0301	3.5±0.3	3.0±0.3	1.15±0.3	3.50	1.60	0.8
PCD0302	3.5±0.3	3.0±0.3	2.1±0.3	3.50	1.60	0.8
PCD0403	4.5±0.3	4.0±0.3	3.2±0.3	4.50	1.75	1.5
PCD0502	5.8±0.3	5.2±0.3	2.5±0.3	5.50	2.15	1.7
PCD0503	5.8±0.3	5.2±0.3	3.0±0.3	5.50	2.15	1.7
PCD0504	5.8±0.3	5.2±0.3	4.5±0.3	5.50	2.15	1.7
PCD0703	7.8±0.3	7.0±0.3	3.5±0.5	7.50	3.00	2.0
PCD0705	7.8±0.3	7.0±0.3	5.0±0.5	7.50	3.00	2.0
PCD1004	10.0±0.4	9.0±0.3	4.0±0.5	9.50	3.75	2.5
PCD1005	10.0±0.4	9.0±0.3	5.4±0.5	9.50	3.75	2.5
PCD1006	10.0±0.4	9.0±0.3	7.5 max.	9.50	3.75	2.5

Features

- High power, High saturation inductors
- Silver Plated Type, Low cost design
- Ideal inductors for DC-DC converters
- Available on tape and reel for auto surface mounting

Applications

- Power Supply For VTRs.
- LCD Televisions
- Personal Computers
- Handheld Communication
- DC/DC Converters, etc.

Characteristics

- Rated DC Current: The DC current when the inductance becomes 10% lower than its initial value. (Ta=25°C).
- Operating temperature range: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Inductance and rated current ranges

- PCD0301 1.0~390μH 1.40~0.10A
- PCD0302 1.0~470μH 2.20~0.07A
- PCD0403 0.5~1000μH 3.00~0.13A
- PCD0502 1.0~1000μH 4.00~0.14A
- PCD0503 1.0~1000μH 4.50~0.135A
- PCD0504 0.6~3300μH 11.0~0.08A
- PCD0703 1.0~1000μH 1.64~0.20A
- PCD0705 1.0~1500μH 3.40~0.16A
- PCD1004 1.0~560μH 8.70~0.32A
- PCD1005 1.2~1000μH 8.63~0.20A
- PCD1006 1.0~1000μH 9.50~0.46A

- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

PCD	1005	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	0301: 3.5×3.0×1.15 0302: 3.5×3.0×2.1 0403: 4.5×4.0×3.2 0502: 5.8×5.2×2.5 0503: 5.8×5.2×3.0 0504: 5.8×5.2×4.5 0703: 7.8×7.0×3.5 0705: 7.8×7.0×5.0 1004: 10×9.0×4.0 1005: 10×9.0×5.4 1006: 10×9.0×7.5	K: ±10% M: ±20%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

Electrical Characteristics

PCD0301 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0301MT1R0	1.0	±20%	100KHz, 0.25V	0.060	1.40
PCD0301MT1R5	1.5	±20%	100KHz, 0.25V	0.081	1.30
PCD0301MT1R8	1.8	±20%	100KHz, 0.25V	0.098	1.24
PCD0301MT2R2	2.2	±20%	100KHz, 0.25V	0.240	1.20
PCD0301MT2R7	2.7	±20%	100KHz, 0.25V	0.135	1.04
PCD0301MT3R3	3.3	±20%	100KHz, 0.25V	0.270	1.00
PCD0301MT3R9	3.9	±20%	100KHz, 0.25V	0.188	0.79
PCD0301MT4R7	4.7	±20%	100KHz, 0.25V	0.400	0.90
PCD0301MT5R6	5.6	±20%	100KHz, 0.25V	0.450	0.65
PCD0301MT6R8	6.8	±20%	100KHz, 0.25V	0.500	0.56
PCD0301MT8R2	8.2	±20%	100KHz, 0.25V	0.650	0.50
PCD0301MT100	10	±20%	1KHz, 0.25V	0.750	0.45
PCD0301MT120	12	±20%	1KHz, 0.25V	0.850	0.43
PCD0301MT150	15	±20%	1KHz, 0.25V	1.200	0.39
PCD0301MT180	18	±20%	1KHz, 0.25V	1.300	0.32
PCD0301MT220	22	±20%	1KHz, 0.25V	1.500	0.28
PCD0301MT270	27	±20%	1KHz, 0.25V	2.200	0.26
PCD0301MT330	33	±20%	1KHz, 0.25V	2.800	0.25
PCD0301MT470	47	±20%	1KHz, 0.25V	4.000	0.21
PCD0301MT560	56	±20%	1KHz, 0.25V	4.500	0.20
PCD0301MT680	68	±20%	1KHz, 0.25V	5.000	0.18
PCD0301MT820	82	±20%	1KHz, 0.25V	6.500	0.16
PCD0301MT101	100	±20%	1KHz, 0.25V	7.500	0.15
PCD0301MT221	220	±20%	1KHz, 0.25V	14.00	0.13
PCD0301MT331	330	±20%	1KHz, 0.25V	22.00	0.11
PCD0301MT391	390	±20%	1KHz, 0.25V	26.00	0.10

PCD0302 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0302MT1R0	1.0	±20%	100KHz, 0.25V	0.045	2.200
PCD0302MT1R2	1.2	±20%	100KHz, 0.25V	0.050	2.100
PCD0302MT1R4	1.4	±20%	100KHz, 0.25V	0.050	2.000
PCD0302MT1R5	1.5	±20%	100KHz, 0.25V	0.055	1.700
PCD0302MT1R8	1.8	±20%	100KHz, 0.25V	0.070	1.650
PCD0302MT2R2	2.2	±20%	100KHz, 0.25V	0.085	1.600
PCD0302MT2R7	2.7	±20%	100KHz, 0.25V	0.100	1.400
PCD0302MT3R3	3.3	±20%	100KHz, 0.25V	0.120	1.040
PCD0302MT3R9	3.9	±20%	100KHz, 0.25V	0.130	1.000
PCD0302MT4R7	4.7	±20%	100KHz, 0.25V	0.170	1.000
PCD0302MT5R6	5.6	±20%	100KHz, 0.25V	0.185	0.950
PCD0302MT6R8	6.8	±20%	100KHz, 0.25V	0.200	0.950
PCD0302MT8R2	8.2	±20%	100KHz, 0.25V	0.250	0.900
PCD0302□T100	10	±10%, ±20%	1KHz, 0.25V	0.320	0.760
PCD0302□T120	12	±10%, ±20%	1KHz, 0.25V	0.350	0.685
PCD0302□T150	15	±10%, ±20%	1KHz, 0.25V	0.460	0.635
PCD0302□T180	18	±10%, ±20%	1KHz, 0.25V	0.520	0.525
PCD0302□T220	22	±10%, ±20%	1KHz, 0.25V	0.660	0.500
PCD0302□T270	27	±10%, ±20%	1KHz, 0.25V	0.760	0.405
PCD0302□T330	33	±10%, ±20%	1KHz, 0.25V	0.920	0.380
PCD0302□T390	39	±10%, ±20%	1KHz, 0.25V	1.120	0.355
PCD0302□T470	47	±10%, ±20%	1KHz, 0.25V	1.270	0.330
PCD0302□T560	56	±10%, ±20%	1KHz, 0.25V	1.500	0.290
PCD0302□T680	68	±10%, ±20%	1KHz, 0.25V	2.000	0.260
PCD0302□T820	82	±10%, ±20%	1KHz, 0.25V	2.440	0.230
PCD0302□T101	100	±10%, ±20%	1KHz, 0.25V	2.850	0.200
PCD0302□T121	120	±10%, ±20%	1KHz, 0.25V	3.400	0.180
PCD0302□T151	150	±10%, ±20%	1KHz, 0.25V	4.470	0.160
PCD0302□T181	180	±10%, ±20%	1KHz, 0.25V	5.110	0.150
PCD0302□T221	220	±10%, ±20%	1KHz, 0.25V	7.310	0.140
PCD0302□T271	270	±10%, ±20%	1KHz, 0.25V	8.500	0.100
PCD0302□T331	330	±10%, ±20%	1KHz, 0.25V	10.19	0.090
PCD0302□T471	470	±10%, ±20%	1KHz, 0.25V	13.50	0.070

Electrical Characteristics

PCD0403 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0403MTR50	0.5	±20%	100KHz, 0.25V	0.020	3.000
PCD0403MT1R0	1.0	±20%	100KHz, 0.25V	0.049	2.700
PCD0403NT1R0-1	1.0	±30%	100KHz, 0.1V	0.049	5.720
PCD0403MT1R2	1.2	±20%	100KHz, 0.25V	0.053	2.540
PCD0403MT1R4	1.4	±20%	100KHz, 0.25V	0.056	2.500
PCD0403MT1R5	1.5	±20%	100KHz, 0.25V	0.061	2.240
PCD0403MT1R8	1.8	±20%	100KHz, 0.25V	0.064	2.330
PCD0403MT2R2	2.2	±20%	100KHz, 0.25V	0.072	2.250
PCD0403MT2R2-2	2.2	±20%	100KHz, 1V	0.047	3.600
PCD0403MT2R7	2.7	±20%	100KHz, 0.25V	0.079	2.160
PCD0403MT3R3	3.3	±20%	100KHz, 0.25V	0.086	2.000
PCD0403MT3R9	3.9	±20%	100KHz, 0.25V	0.094	1.840
PCD0403MT4R7	4.7	±20%	100KHz, 0.25V	0.109	1.620
PCD0403MT5R6	5.6	±20%	100KHz, 0.25V	0.126	1.480
PCD0403MT6R8	6.8	±20%	100KHz, 0.25V	0.131	1.430
PCD0403MT8R2	8.2	±20%	100KHz, 0.25V	0.147	1.370
PCD0403□T100	10	±10%, ±20%	1KHz, 0.25V	0.182	1.040
PCD0403□T120	12	±10%, ±20%	1KHz, 0.25V	0.210	0.970
PCD0403□T150	15	±10%, ±20%	1KHz, 0.25V	0.235	0.850
PCD0403MT150-2	15	±20%	1KHz, 0.25V	0.235	1.200
PCD0403□T180	18	±10%, ±20%	1KHz, 0.25V	0.338	0.740
PCD0403□T220	22	±10%, ±20%	1KHz, 0.25V	0.378	0.680
PCD0403□T270	27	±10%, ±20%	1KHz, 0.25V	0.522	0.620
PCD0403□T330	33	±10%, ±20%	1KHz, 0.25V	0.540	0.560
PCD0403□T390	39	±10%, ±20%	1KHz, 0.25V	0.587	0.520
PCD0403□T470	47	±10%, ±20%	1KHz, 0.25V	0.844	0.440
PCD0403□T560	56	±10%, ±20%	1KHz, 0.25V	0.937	0.420
PCD0403□T680	68	±10%, ±20%	1KHz, 0.25V	1.117	0.370
PCD0403□T820	82	±10%, ±20%	1KHz, 0.25V	1.140	0.340
PCD0403□T101	100	±10%, ±20%	1KHz, 0.25V	1.190	0.300
PCD0403□T121	120	±10%, ±20%	1KHz, 0.25V	1.400	0.256
PCD0403□T151	150	±10%, ±20%	1KHz, 0.25V	1.800	0.212
PCD0403□T181	180	±10%, ±20%	1KHz, 0.25V	1.920	0.200
PCD0403□T221	220	±10%, ±20%	1KHz, 0.25V	2.030	0.180
PCD0403□T271	270	±10%, ±20%	1KHz, 0.25V	2.890	0.174
PCD0403□T331	330	±10%, ±20%	1KHz, 0.25V	3.760	0.168
PCD0403□T391	390	±10%, ±20%	1KHz, 0.25V	4.260	0.160
PCD0403□T471	470	±10%, ±20%	1KHz, 0.25V	5.140	0.158
PCD0403□T561	560	±10%, ±20%	1KHz, 0.25V	6.370	0.148
PCD0403□T681	680	±10%, ±20%	1KHz, 0.25V	9.240	0.128
PCD0403□T821	820	±10%, ±20%	1KHz, 0.25V	13.40	0.110
PCD0403□T102	1000	±10%, ±20%	1KHz, 0.25V	15.60	0.109
PCD0403KT102-2	1000	±10%	1KHz, 0.25V	14.00	0.130

Note: PCD0403MT2R2-2 The DC current when the inductance becomes 30% lower than its initial value

PCD0403KT102-2 The DC current when the inductance becomes 35% lower than its initial value

■Viking is capable to design according to customer special requirement

Electrical Characteristics

PCD0502 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0502MT1R0	1.0	$\pm 20\%$	100KHz, 0.25V	0.021	4.000
PCD0502MT1R2	1.2	$\pm 20\%$	100KHz, 0.25V	0.050	4.200
PCD0502MT1R5	1.5	$\pm 20\%$	100KHz, 0.25V	0.060	4.000
PCD0502MT1R8	1.8	$\pm 20\%$	100KHz, 0.25V	0.065	3.700
PCD0502MT2R2	2.2	$\pm 20\%$	100KHz, 0.25V	0.070	3.500
PCD0502MT2R7	2.7	$\pm 20\%$	100KHz, 0.25V	0.080	3.200
PCD0502MT3R3	3.3	$\pm 20\%$	100KHz, 0.25V	0.100	2.700
PCD0502MT3R9	3.9	$\pm 20\%$	100KHz, 0.25V	0.120	2.400
PCD0502MT4R7	4.7	$\pm 20\%$	100KHz, 0.25V	0.140	2.000
PCD0502MT5R6	5.6	$\pm 20\%$	100KHz, 0.25V	0.150	1.800
PCD0502MT6R8	6.8	$\pm 20\%$	100KHz, 0.25V	0.160	1.500
PCD0502MT8R2	8.2	$\pm 20\%$	100KHz, 0.25V	0.170	1.400
PCD0502□T100	10	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.200	1.300
PCD0502□T120	12	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.230	1.100
PCD0502□T150	15	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.250	1.050
PCD0502□T180	18	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.300	1.000
PCD0502□T220	22	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.350	0.900
PCD0502□T270	27	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.400	0.850
PCD0502□T330	33	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.500	0.750
PCD0502□T390	39	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.550	0.700
PCD0502□T470	47	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.650	0.600
PCD0502□T560	56	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.760	0.550
PCD0502□T680	68	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	0.950	0.500
PCD0502□T820	82	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	1.200	0.450
PCD0502□T101	100	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	1.400	0.400
PCD0502□T121	120	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	1.750	0.350
PCD0502□T151	150	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	2.000	0.250
PCD0502□T181	180	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	2.600	0.250
PCD0502□T221	220	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	3.000	0.200
PCD0502□T271	270	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	3.700	0.180
PCD0502□T331	330	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	4.300	0.170
PCD0502□T391	390	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	6.000	0.160
PCD0502□T471	470	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	6.700	0.150
PCD0502□T102	1000	$\pm 10\%, \pm 20\%$	1KHz, 0.25V	15.00	0.140

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCD0503 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0503MT1R0	1.0	±20%	100KHz, 0.25V	0.03	4.50
PCD0503MT1R2	1.2	±20%	100KHz, 0.25V	0.03	4.20
PCD0503MT1R5	1.5	±20%	100KHz, 0.25V	0.03	4.10
PCD0503MT1R8	1.8	±20%	100KHz, 0.25V	0.03	3.70
PCD0503MT2R2	2.2	±20%	100KHz, 0.25V	0.03	3.50
PCD0503MT2R7	2.7	±20%	100KHz, 0.25V	0.04	3.20
PCD0503MT3R3	3.3	±20%	100KHz, 0.25V	0.05	2.80
PCD0503MT3R9	3.9	±20%	100KHz, 0.25V	0.06	2.60
PCD0503MT4R7	4.7	±20%	100KHz, 0.25V	0.07	2.50
PCD0503MT5R6	5.6	±20%	100KHz, 0.25V	0.08	2.40
PCD0503MT6R8	6.8	±20%	100KHz, 0.25V	0.09	2.20
PCD0503MT8R2	8.2	±20%	100KHz, 0.25V	0.10	2.00
PCD0503□T100	10	±10%, ±20%	1KHz, 0.25V	0.13	1.80
PCD0503□T120	12	±10%, ±20%	1KHz, 0.25V	0.16	1.75
PCD0503□T150	15	±10%, ±20%	1KHz, 0.25V	0.19	1.70
PCD0503□T150-1	15	±10%, ±20%	100KHz, 0.25V	0.15	1.70
PCD0503□T180	18	±10%, ±20%	1KHz, 0.25V	0.21	1.60
PCD0503□T220	22	±10%, ±20%	1KHz, 0.25V	0.28	1.50
PCD0503□T270	27	±10%, ±20%	1KHz, 0.25V	0.32	1.40
PCD0503□T330	33	±10%, ±20%	1KHz, 0.25V	0.38	1.10
PCD0503□T390	39	±10%, ±20%	1KHz, 0.25V	0.42	1.00
PCD0503□T470	47	±10%, ±20%	1KHz, 0.25V	0.43	0.90
PCD0503□T560	56	±10%, ±20%	1KHz, 0.25V	0.50	0.85
PCD0503□T680	68	±10%, ±20%	1KHz, 0.25V	0.68	0.80
PCD0503□T820	82	±10%, ±20%	1KHz, 0.25V	0.82	0.65
PCD0503□T101	100	±10%, ±20%	1KHz, 0.25V	1.10	0.60
PCD0503□T121	120	±10%, ±20%	1KHz, 0.25V	1.20	0.58
PCD0503□T151	150	±10%, ±20%	1KHz, 0.25V	1.50	0.43
PCD0503□T181	180	±10%, ±20%	1KHz, 0.25V	1.80	0.41
PCD0503□T221	220	±10%, ±20%	1KHz, 0.25V	2.00	0.38
PCD0503□T271	270	±10%, ±20%	1KHz, 0.25V	2.90	0.35
PCD0503□T331	330	±10%, ±20%	1KHz, 0.25V	3.30	0.28
PCD0503□T391	390	±10%, ±20%	1KHz, 0.25V	3.70	0.26
PCD0503□T471	470	±10%, ±20%	1KHz, 0.25V	4.90	0.20
PCD0503□T561	560	±10%, ±20%	1KHz, 0.25V	5.00	0.19
PCD0503□T681	680	±10%, ±20%	1KHz, 0.25V	6.00	0.18
PCD0503□T821	820	±10%, ±20%	1KHz, 0.25V	6.60	0.15
PCD0503□T102	1000	±10%, ±20%	1KHz, 0.25V	8.00	0.13
PCD0503KT102-2	1000	±10%	1KHz, 0.25V	11.5	0.135

Note: PCD0503□T150-1 The DC current when the inductance becomes 15% lower than its initial value

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCD0504 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0504PTR60-1	0.6	+40/-20%	100KHz, 1V	0.0182	11.00
PCD0504MT1R0	1.0	±20%	100KHz, 0.25V	0.010	5.00
PCD0504NT1R0-1	1.0	±30%	100KHz, 1V	0.0139	8.50
PCD0504NT1R2	1.2	±20%	100KHz, 0.25V	0.012	4.77
PCD0504NT1R5	1.5	±20%	100KHz, 0.25V	0.013	4.50
PCD0504NT1R8	1.8	±20%	100KHz, 0.25V	0.016	4.25
PCD0504NT2R2	2.2	±20%	100KHz, 0.25V	0.017	4.20
PCD0504NT2R2-1	2.2	±30%	100KHz, 1V	0.0251	6.00
PCD0504MT2R7	2.7	±20%	100KHz, 0.25V	0.025	4.00
PCD0504MT3R3	3.3	±20%	100KHz, 0.25V	0.034	2.50
PCD0504MT3R9	3.9	±20%	100KHz, 0.25V	0.035	2.20
PCD0504MT4R7	4.7	±20%	100KHz, 0.25V	0.035	2.00
PCD0504MT4R7-2	4.7	±20%	7.96MHz, 1V	0.060	3.00
PCD0504MT5R6	5.6	±20%	100KHz, 0.25V	0.042	1.82
PCD0504MT6R8	6.8	±20%	100KHz, 0.25V	0.060	1.69
PCD0504MT8R2	8.2	±20%	100KHz, 0.25V	0.060	1.56
PCD0504□T100	10	±10%, ±20%	1KHz, 0.25V	0.100	1.44
PCD0504□T120	12	±10%, ±20%	1KHz, 0.25V	0.120	1.40
PCD0504□T150	15	±10%, ±20%	1KHz, 0.25V	0.140	1.30
PCD0504□T180	18	±10%, ±20%	1KHz, 0.25V	0.150	1.23
PCD0504□T220	22	±10%, ±20%	1KHz, 0.25V	0.180	1.11
PCD0504□T270	27	±10%, ±20%	1KHz, 0.25V	0.200	0.97
PCD0504□T330	33	±10%, ±20%	1KHz, 0.25V	0.230	0.88
PCD0504□T390	39	±10%, ±20%	1KHz, 0.25V	0.320	0.80
PCD0504□T470	47	±10%, ±20%	1KHz, 0.25V	0.370	0.72
PCD0504KT470-2	47	±10%	1KHz, 0.25V	0.370	1.50
PCD0504□T560	56	±10%, ±20%	1KHz, 0.25V	0.420	0.68
PCD0504□T680	68	±10%, ±20%	1KHz, 0.25V	0.460	0.61
PCD0504□T820	82	±10%, ±20%	1KHz, 0.25V	0.600	0.58
PCD0504□T101	100	±10%, ±20%	1KHz, 0.25V	0.700	0.52
PCD0504□T121	120	±10%, ±20%	1KHz, 0.25V	0.930	0.48
PCD0504□T151	150	±10%, ±20%	1KHz, 0.25V	1.100	0.40
PCD0504□T181	180	±10%, ±20%	1KHz, 0.25V	1.380	0.38
PCD0504□T221	220	±10%, ±20%	1KHz, 0.25V	1.570	0.35
PCD0504KT221-1	220	±10%	1KHz, 0.25V	1.570	0.47
PCD0504KT221-2	220	±10%	100KHz, 0.25V	1.400	0.40
PCD0504□T271	270	±10%, ±20%	1KHz, 0.25V	1.600	0.34
PCD0504□T331	330	±10%, ±20%	1KHz, 0.25V	1.820	0.32
PCD0504□T471	470	±10%, ±20%	1KHz, 0.25V	2.760	0.30
PCD0504□T561	560	±10%, ±20%	1KHz, 0.25V	3.100	0.29
PCD0504□T681	680	±10%, ±20%	1KHz, 0.25V	4.050	0.28
PCD0504□T821	820	±10%, ±20%	1KHz, 0.25V	5.560	0.27
PCD0504□T102	1000	±10%, ±20%	1KHz, 0.25V	5.740	0.26
PCD0504KT122-1	1200	±10%	1KHz, 0.5V	6.40	0.16
PCD0504KT152-1	1500	±10%	1KHz, 0.5V	8.55	0.16
PCD0504KT222-1	2200	±10%	1KHz, 0.5V	12.80	0.10
PCD0504KT332	3300	±10%	1KHz, 0.25V	16.8	0.085
PCD0504KT332-1	3300	±10%	1KHz, 0.5V	24.0	0.08

Note: PCD0504NT1R0-1 / PCD0504NT2R2-1 The DC current when the inductance becomes 30% lower than its initial value

PCD0504PTR60-1 / PCD0504KT470-2 The DC current when the inductance becomes 35% lower than its initial value

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

PCD0703 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0703MT1R0	1.0	$\pm 20\%$	100KHz, 0.25V	0.018	1.64
PCD0703MT1R5	1.5	$\pm 20\%$	100KHz, 0.25V	0.020	1.60
PCD0703MT2R2	2.2	$\pm 20\%$	100KHz, 0.25V	0.023	1.60
PCD0703MT3R3	3.3	$\pm 20\%$	100KHz, 0.25V	0.025	1.59
PCD0703MT4R7	4.7	$\pm 20\%$	100KHz, 0.25V	0.039	1.54
PCD0703MT6R8	6.8	$\pm 20\%$	100KHz, 0.25V	0.040	1.49
PCD0703MT8R2	8.2	$\pm 20\%$	100KHz, 0.25V	0.080	1.46
PCD0703□T100	10	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.080	1.44
PCD0703□T120	12	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.090	1.39
PCD0703□T150	15	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.104	1.24
PCD0703□T180	18	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.111	1.12
PCD0703□T220	22	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.129	1.07
PCD0703□T270	27	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.153	0.94
PCD0703□T330	33	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.170	0.85
PCD0703□T390	39	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.217	0.74
PCD0703□T470	47	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.252	0.68
PCD0703□T560	56	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.282	0.64
PCD0703□T680	68	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.332	0.59
PCD0703□T820	82	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.406	0.54
PCD0703□T101	100	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.481	0.51
PCD0703□T121	120	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.536	0.49
PCD0703□T151	150	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.755	0.40
PCD0703□T181	180	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.022	0.36
PCD0703□T221	220	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.200	0.31
PCD0703□T271	270	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.306	0.29
PCD0703□T331	330	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.495	0.28
PCD0703□T391	390	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.700	0.27
PCD0703□T471	470	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.100	0.26
PCD0703□T561	560	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.660	0.25
PCD0703□T681	680	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	3.000	0.23
PCD0703□T821	820	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	3.630	0.21
PCD0703□T102	1000	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	4.760	0.20

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCD0705 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0705MT1R0	1.0	$\pm 20\%$	100KHz, 0.25V	0.013	3.40
PCD0705MT1R5	1.5	$\pm 20\%$	100KHz, 0.25V	0.016	3.30
PCD0705MT1R8	1.8	$\pm 20\%$	100KHz, 0.25V	0.020	3.20
PCD0705MT2R2	2.2	$\pm 20\%$	100KHz, 0.25V	0.023	3.00
PCD0705MT2R5	2.5	$\pm 20\%$	100KHz, 0.25V	0.026	2.90
PCD0705MT2R7	2.7	$\pm 20\%$	100KHz, 0.25V	0.027	2.85
PCD0705MT3R3	3.3	$\pm 20\%$	100KHz, 0.25V	0.028	2.80
PCD0705MT4R7	4.7	$\pm 20\%$	100KHz, 0.25V	0.045	2.70
PCD0705MT5R6	5.6	$\pm 20\%$	100KHz, 0.25V	0.048	2.65
PCD0705MT6R8	6.8	$\pm 20\%$	100KHz, 0.25V	0.058	2.50
PCD0705MT8R2	8.2	$\pm 20\%$	100KHz, 0.25V	0.070	2.40
PCD0705□T100	10	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.070	2.30
PCD0705□T120	12	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.080	2.00
PCD0705□T150	15	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.090	1.80
PCD0705□T180	18	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.100	1.60
PCD0705□T220	22	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.110	1.50
PCD0705□T270	27	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.120	1.30
PCD0705□T330	33	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.130	1.20
PCD0705□T390	39	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.160	1.10
PCD0705□T470	47	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.180	1.10
PCD0705□T560	56	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.240	0.94
PCD0705□T680	68	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.280	0.85
PCD0705□T820	82	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.370	0.78
PCD0705□T101	100	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.430	0.72
PCD0705□T121	120	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.470	0.66
PCD0705□T151	150	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.640	0.58
PCD0705□T181	180	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.710	0.51
PCD0705□T221	220	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.960	0.49
PCD0705□T271	270	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.110	0.42
PCD0705□T331	330	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.260	0.40
PCD0705□T391	390	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.770	0.36
PCD0705□T471	470	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.960	0.34
PCD0705□T561	560	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.280	0.32
PCD0705□T681	680	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.480	0.30
PCD0705□T821	820	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	3.400	0.30
PCD0705□T102	1000	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	4.200	0.30
PCD0705KT102-4	1000	$\pm 10\%$	100KHz, 0.25V	3.300	0.30
PCD0705KT102-5	1000	$\pm 10\%$	1KHz, 0.25V	4.500	0.34
PCD0705□T122	1200	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	5.000	0.17
PCD0705KT122-1	1200	$\pm 10\%$	100KHz, 0.25V	4.500	0.28
PCD0705□T152	1500	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	5.520	0.16

Note: PCD0705KT102-5 The DC current when the inductance becomes 35% lower than its initial value

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

PCD1004 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD1004MT1R0	1.0	$\pm 20\%$	100KHz, 0.25V	0.012	8.70
PCD1004MT1R2	1.2	$\pm 20\%$	100KHz, 0.25V	0.014	8.00
PCD1004MT1R5	1.5	$\pm 20\%$	100KHz, 0.25V	0.016	7.48
PCD1004MT1R8	1.8	$\pm 20\%$	100KHz, 0.25V	0.018	6.80
PCD1004MT2R2	2.2	$\pm 20\%$	100KHz, 0.25V	0.020	5.40
PCD1004MT2R7	2.7	$\pm 20\%$	100KHz, 0.25V	0.024	3.20
PCD1004MT3R3	3.3	$\pm 20\%$	100KHz, 0.25V	0.028	2.85
PCD1004MT3R9	3.9	$\pm 20\%$	100KHz, 0.25V	0.030	2.80
PCD1004MT4R7	4.7	$\pm 20\%$	100KHz, 0.25V	0.038	2.75
PCD1004MT5R6	5.6	$\pm 20\%$	100KHz, 0.25V	0.040	2.70
PCD1004MT6R8	6.8	$\pm 20\%$	100KHz, 0.25V	0.042	2.65
PCD1004MT8R2	8.2	$\pm 20\%$	100KHz, 0.25V	0.048	2.60
PCD1004□T100	10	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.053	2.38
PCD1004□T120	12	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.061	2.13
PCD1004□T150	15	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.070	1.87
PCD1004□T180	18	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.081	1.73
PCD1004□T220	22	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.090	1.60
PCD1004□T270	27	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.100	1.44
PCD1004□T330	33	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.120	1.26
PCD1004□T390	39	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.151	1.20
PCD1004□T470	47	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.170	1.10
PCD1004□T560	56	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.199	1.01
PCD1004□T680	68	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.223	0.91
PCD1004□T820	82	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.252	0.85
PCD1004□T101	100	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.344	0.74
PCD1004□T121	120	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.396	0.69
PCD1004□T151	150	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.544	0.61
PCD1004□T181	180	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.621	0.56
PCD1004□T221	220	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.721	0.53
PCD1004□T271	270	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.949	0.45
PCD1004□T331	330	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.100	0.42
PCD1004□T391	390	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.245	0.38
PCD1004□T471	470	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.526	0.35
PCD1004□T561	560	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.904	0.32

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCD1005 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD1005MT1R2	1.2	±20%	100KHz, 0.25V	0.009	8.63
PCD1005MT1R5	1.5	±20%	100KHz, 0.25V	0.010	8.00
PCD1005MT2R2	2.2	±20%	100KHz, 0.25V	0.014	6.80
PCD1005MT3R3	3.3	±20%	100KHz, 0.25V	0.018	3.05
PCD1005MT4R7	4.7	±20%	100KHz, 0.25V	0.020	2.90
PCD1005MT4R7-1	4.7	±20%	100KHz, 0.25V	0.020	7.00
PCD1005MT6R8	6.8	±20%	100KHz, 0.25V	0.040	2.75
PCD1005MT8R2	8.2	±20%	100KHz, 0.25V	0.050	2.70
PCD1005□T100	10	±10%, ±20%	1KHz, 0.25V	0.060	2.60
PCD1005□T120	12	±10%, ±20%	1KHz, 0.25V	0.070	2.45
PCD1005□T150	15	±10%, ±20%	1KHz, 0.25V	0.080	2.27
PCD1005□T180	18	±10%, ±20%	1KHz, 0.25V	0.090	2.15
PCD1005□T220	22	±10%, ±20%	1KHz, 0.25V	0.100	1.95
PCD1005□T270	27	±10%, ±20%	1KHz, 0.25V	0.110	1.76
PCD1005□T330	33	±10%, ±20%	1KHz, 0.25V	0.120	1.50
PCD1005□T390	39	±10%, ±20%	1KHz, 0.25V	0.140	1.37
PCD1005□T470	47	±10%, ±20%	1KHz, 0.25V	0.170	1.28
PCD1005□T560	56	±10%, ±20%	1KHz, 0.25V	0.190	1.17
PCD1005□T680	68	±10%, ±20%	1KHz, 0.25V	0.220	1.11
PCD1005□T820	82	±10%, ±20%	1KHz, 0.25V	0.250	1.00
PCD1005□T101	100	±10%, ±20%	1KHz, 0.25V	0.350	0.97
PCD1005□T121	120	±10%, ±20%	1KHz, 0.25V	0.400	0.89
PCD1005□T151	150	±10%, ±20%	1KHz, 0.25V	0.470	0.78
PCD1005□T181	180	±10%, ±20%	1KHz, 0.25V	0.630	0.72
PCD1005□T221	220	±10%, ±20%	1KHz, 0.25V	0.730	0.66
PCD1005□T271	270	±10%, ±20%	1KHz, 0.25V	0.970	0.57
PCD1005□T331	330	±10%, ±20%	1KHz, 0.25V	1.150	0.52
PCD1005□T391	390	±10%, ±20%	1KHz, 0.25V	1.300	0.48
PCD1005□T471	470	±10%, ±20%	1KHz, 0.25V	1.480	0.42
PCD1005□T561	560	±10%, ±20%	1KHz, 0.25V	1.900	0.33
PCD1005□T681	680	±10%, ±20%	1KHz, 0.25V	2.250	0.28
PCD1005□T821	820	±10%, ±20%	1KHz, 0.25V	2.550	0.24
PCD1005□T102	1000	±10%, ±20%	1KHz, 0.25V	3.490	0.20

■ Viking is capable to design according to customer special requirement

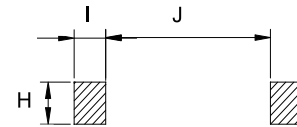
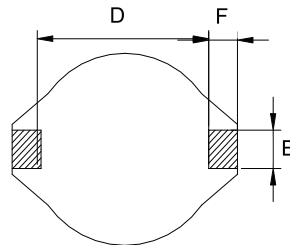
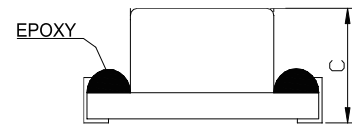
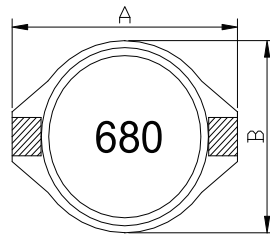
■ Electrical Characteristics

PCD1006 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD1006MT1R0	1.0	$\pm 20\%$	100KHz, 0.25V	0.008	9.50
PCD1006MT1R8	1.8	$\pm 20\%$	100KHz, 0.25V	0.011	8.60
PCD1006MT2R2	2.2	$\pm 20\%$	100KHz, 0.25V	0.012	7.20
PCD1006MT3R3	3.3	$\pm 20\%$	100KHz, 0.25V	0.016	6.80
PCD1006MT3R9	3.9	$\pm 20\%$	100KHz, 0.25V	0.017	6.35
PCD1006MT4R7	4.7	$\pm 20\%$	100KHz, 0.25V	0.019	5.45
PCD1006MT5R6	5.6	$\pm 20\%$	100KHz, 0.25V	0.024	4.30
PCD1006MT6R8	6.8	$\pm 20\%$	100KHz, 0.25V	0.035	3.52
PCD1006MT8R2	8.2	$\pm 20\%$	100KHz, 0.25V	0.045	3.51
PCD1006□T100	10	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.060	3.50
PCD1006□T120	12	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.070	3.40
PCD1006□T150	15	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.080	3.10
PCD1006□T180	18	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.090	3.00
PCD1006□T220	22	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.100	2.60
PCD1006□T270	27	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.110	2.40
PCD1006□T330	33	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.120	2.30
PCD1006□T390	39	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.140	2.10
PCD1006□T470	47	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.170	1.95
PCD1006□T560	56	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.190	1.85
PCD1006□T680	68	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.220	1.65
PCD1006□T820	82	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.250	1.50
PCD1006□T101	100	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.350	1.40
PCD1006□T121	120	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.400	1.30
PCD1006□T151	150	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.470	1.20
PCD1006□T181	180	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.630	1.00
PCD1006□T221	220	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.730	0.95
PCD1006□T271	270	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	0.970	0.90
PCD1006□T331	330	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.150	0.80
PCD1006□T391	390	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.300	0.75
PCD1006□T471	470	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.480	0.65
PCD1006□T561	560	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	1.900	0.60
PCD1006□T681	680	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.250	0.50
PCD1006□T821	820	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	2.550	0.48
PCD1006□T102	1000	$\pm 10\%$, $\pm 20\%$	1KHz, 0.25V	3.000	0.46

■ Viking is capable to design according to customer special requirement

Shielded SMD Power Inductor – PS



Features

- With magnetically shielded against radiation
- PS1608 can help to achieve longer battery life significantly in handheld communication devices.
- PS3316 / 5022 designed for the higher current requirements of portable computers.
- PS1608 used ceramic base with gold-plating
- PS3316 / 5022 used LCP plastic base

Applications

- Portable Telephones
- Personal Computers
- Other Various Electronic Appliances
- DC/DC Converters, etc.

Characteristics

- Saturation Rated Current (I sat / IDC): The DC current when the inductance becomes 10% (1608 becomes 30%) lower than its initial value. (Ta=25°C)
- Temperature Rise Current (I rms): The actual current when temperature of coil becomes Δ 40°C. (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Dimensions

Unit: mm

Type	A max.	B max.	C max.	D	E	F	H	I	J
PS1608	6.60	4.45	2.92	4.32	1.27	1.02	3.56	1.40	4.06
PS3316	12.95	9.40	5.21	7.62	2.54	2.54	2.79	2.92	7.37
PS5022	18.54	15.24	7.62	12.70	2.54	2.54	2.79	2.92	12.45

Inductance and rated current ranges

- PS1608 1.0~10000μH 1.4~0.02A
- PS3316 1.0~1000μH 5.6~0.32A
- PS5022 1.0~1000μH 20.0~0.80A
- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

PS	1608	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	1608: 6.60×4.45×2.92 3316: 12.95×9.4×5.21 5022: 18.54×15.24×7.62	M: ±20%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

Electrical Characteristics

PS1608 Type

Part No	L (μ H)	Tolerance	Test Condition		DCR (Ω) max.	SRF ref (MHz)	Q min.	IDC (A) max.	
			L	Q				I sat	I rms
PS1608MT1R0	1.0	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.040	250	30	1.40	3.00
PS1608MT1R5	1.5	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.045	125	30	0.93	2.30
PS1608MT2R2	2.2	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.050	120	40	0.92	1.80
PS1608MT3R3	3.3	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.055	120	40	0.75	1.60
PS1608MT4R7	4.7	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.060	105	40	0.58	1.40
PS1608MT6R8	6.8	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.065	50	40	0.58	1.20
PS1608MT100	10	$\pm 20\%$	100KHz, 0.1V	200KHz, 0.1V	0.075	38	40	0.37	1.00
PS1608MT150	15	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.090	33	40	0.31	0.80
PS1608MT220	22	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.11	25	40	0.30	0.70
PS1608MT330	33	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.19	20	40	0.24	0.60
PS1608MT470	47	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.23	20	40	0.24	0.50
PS1608MT680	68	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.29	15	40	0.17	0.40
PS1608MT101	100	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.48	10	40	0.13	0.30
PS1608MT151	150	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.59	9	40	0.10	0.26
PS1608MT221	220	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	0.90	6	40	0.10	0.22
PS1608MT331	330	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	1.40	5	40	0.07	0.20
PS1608MT471	470	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	1.80	4	40	0.06	0.19
PS1608MT681	680	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	2.20	3	40	0.06	0.18
PS1608MT102	1000	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	3.40	2	40	0.05	0.15
PS1608MT152	1500	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	4.20	2	50	0.04	0.12
PS1608MT222	2200	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	8.50	2	50	0.03	0.10
PS1608MT332	3300	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	11.0	1	50	0.02	0.08
PS1608MT472	4700	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	13.9	1	50	0.02	0.06
PS1608MT682	6800	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	25.0	1	50	0.02	0.04
PS1608MT103	10000	$\pm 20\%$	100KHz, 0.1V	100KHz, 0.1V	32.8	0.8	50	0.02	0.02

PS3316 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PS3316MT1R0	1.0	$\pm 20\%$	100KHz, 0.1V	0.021	5.60
PS3316MT1R5	1.5	$\pm 20\%$	100KHz, 0.1V	0.022	5.20
PS3316MT2R2	2.2	$\pm 20\%$	100KHz, 0.1V	0.032	5.00
PS3316MT3R3	3.3	$\pm 20\%$	100KHz, 0.1V	0.039	3.90
PS3316MT4R7	4.7	$\pm 20\%$	100KHz, 0.1V	0.054	3.20
PS3316MT6R8	6.8	$\pm 20\%$	100KHz, 0.1V	0.075	2.80
PS3316MT100	10	$\pm 20\%$	100KHz, 0.1V	0.101	2.40
PS3316MT120	12	$\pm 20\%$	100KHz, 0.1V	0.140	2.10
PS3316MT150	15	$\pm 20\%$	100KHz, 0.1V	0.150	2.00
PS3316MT180	18	$\pm 20\%$	100KHz, 0.1V	0.200	1.70
PS3316MT220	22	$\pm 20\%$	100KHz, 0.1V	0.207	1.60
PS3316MT270	27	$\pm 20\%$	100KHz, 0.1V	0.300	1.50
PS3316MT330	33	$\pm 20\%$	100KHz, 0.1V	0.334	1.40
PS3316MT390	39	$\pm 20\%$	100KHz, 0.1V	0.460	1.10
PS3316MT470	47	$\pm 20\%$	100KHz, 0.1V	0.472	1.00
PS3316MT680	68	$\pm 20\%$	100KHz, 0.1V	0.660	0.90
PS3316MT101	100	$\pm 20\%$	100KHz, 0.1V	1.110	0.80
PS3316MT121	120	$\pm 20\%$	100KHz, 0.1V	1.300	0.62
PS3316MT151	150	$\pm 20\%$	100KHz, 0.1V	1.550	0.60
PS3316□T221	220	$\pm 20\%, \pm 10\%$	100KHz, 0.1V	2.000	0.50
PS3316MT271	270	$\pm 20\%$	100KHz, 0.1V	4.600	0.42
PS3316MT331	330	$\pm 20\%$	100KHz, 0.1V	5.600	0.35
PS3316MT391	390	$\pm 20\%$	100KHz, 0.1V	6.600	0.34
PS3316MT471	470	$\pm 20\%$	100KHz, 0.1V	7.600	0.33
PS3316□T681	680	$\pm 20\%, \pm 10\%$	100KHz, 0.1V	9.000	0.31
PS3316MT102	1000	$\pm 20\%$	100KHz, 0.1V	8.300	0.32

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

PS5022 Type

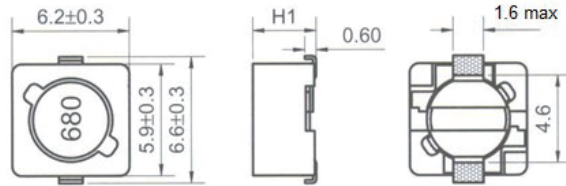
Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PS5022MT1R0	1.0	±20%	100KHz, 0.1V	0.024	20.00
PS5022MT2R2	2.2	±20%	100KHz, 0.1V	0.026	11.00
PS5022MT3R3	3.3	±20%	100KHz, 0.1V	0.029	10.00
PS5022MT3R9	3.9	±20%	100KHz, 0.1V	0.030	8.50
PS5022MT4R7	4.7	±20%	100KHz, 0.1V	0.032	8.40
PS5022MT5R6	5.6	±20%	100KHz, 0.1V	0.034	8.30
PS5022MT6R8	6.8	±20%	100KHz, 0.1V	0.036	8.20
PS5022MT8R2	8.2	±20%	100KHz, 0.1V	0.038	8.10
PS5022MT100	10	±20%	100KHz, 0.1V	0.040	8.00
PS5022MT120	12	±20%	100KHz, 0.1V	0.046	7.10
PS5022MT150	15	±20%	100KHz, 0.1V	0.048	7.00
PS5022MT180	18	±20%	100KHz, 0.1V	0.056	6.10
PS5022MT220	22	±20%	100KHz, 0.1V	0.059	6.00
PS5022MT270	27	±20%	100KHz, 0.1V	0.066	5.10
PS5022MT330	33	±20%	100KHz, 0.1V	0.075	5.00
PS5022MT390	39	±20%	100KHz, 0.1V	0.092	4.10
PS5022MT470	47	±20%	100KHz, 0.1V	0.097	4.00
PS5022MT560	56	±20%	100KHz, 0.1V	0.132	3.10
PS5022MT680	68	±20%	100KHz, 0.1V	0.138	3.00
PS5022MT820	82	±20%	100KHz, 0.1V	0.202	2.50
PS5022MT101	100	±20%	100KHz, 0.1V	0.207	2.40
PS5022MT121	120	±20%	100KHz, 0.1V	0.286	2.20
PS5022MT151	150	±20%	100KHz, 0.1V	0.293	2.10
PS5022MT181	180	±20%	100KHz, 0.1V	0.420	1.91
PS5022MT221	220	±20%	100KHz, 0.1V	0.470	1.90
PS5022MT271	270	±20%	100KHz, 0.1V	0.720	1.12
PS5022MT331	330	±20%	100KHz, 0.1V	0.780	1.10
PS5022MT391	390	±20%	100KHz, 0.1V	1.020	1.10
PS5022MT471	470	±20%	100KHz, 0.1V	1.080	1.10
PS5022MT561	560	±20%	100KHz, 0.1V	1.320	0.97
PS5022MT681	680	±20%	100KHz, 0.1V	1.400	0.96
PS5022MT821	820	±20%	100KHz, 0.1V	1.960	0.81
PS5022MT102	1000	±20%	100KHz, 0.1V	2.010	0.80

■ Viking is capable to design according to customer special requirement

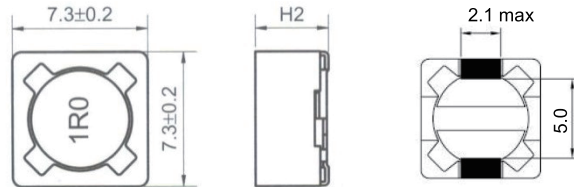
Shielded SMD Power Inductor—PCS



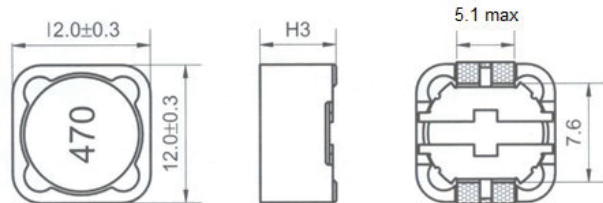
PCS62B / 64B



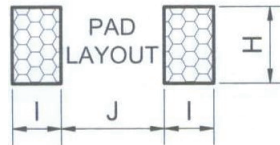
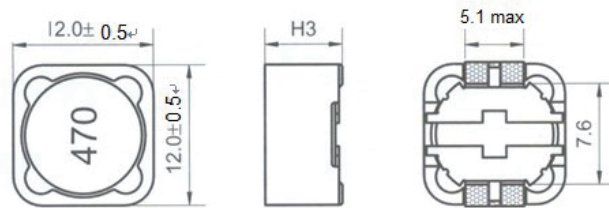
PCS73 / 74



PCS124 / 125 / 127 / 129



PCSH127



Features

- High power, High saturation inductors
- With magnetically shielded against radiation
- Directly connected electrode on ferrite core
- Highly accurate dimensions for surface mounting

Applications

- Power Supply for VTRs.
- LCD Televisions
- Personal Computers
- Handheld Communication Equipment
- DC/DC Converters, etc.

Characteristics except PCSH127

- Rated DC Current: The DC current at which the inductance becomes 25% lower than its initial value . (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 0~35°C; Humidity 25~80%RH

Characteristics for PCSH127

- Rated DC Current: The DC current at which the inductance becomes 30% lower than its initial value . (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 0~35°C; Humidity 25~80%RH

Inductance and rated current ranges

–PCS62B	1.5μH~330μH	3.50~0.19A
–PCS64B	10μH~1000μH	1.35~0.14A
–PCS73	1.0μH~1000μH	7.97~0.25A
–PCS74	1.0μH~1000μH	8.0~0.18A
–PCS124	1.5μH~330μH	8.75~0.75A
–PCS125	1.3μH~1500μH	8.0~0.5A
–PCS127	1.0μH~2200μH	10.0~0.65A
–PCS129	1.0μH~1000μH	17.0~0.76A
–PCSH127	2.2μH~1000μH	25.5~1.14A

- Test equipment:
L: HP4284A or HP4285A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Dimensions

Unit: mm

Type	H1 max.	H2 max.	H3 max.	H	I	J
PCS62B	3.0	-	-	1.9	1.4	4.6
PCS64B	5.0	-	-	1.9	1.4	4.6
PCS73	-	3.4	-	2.2	1.6	4.8
PCS74	-	4.5	-	2.2	1.6	4.8
PCS124	-	-	4.5	5.4	2.9	7.0
PCS125	-	-	6.0	5.4	2.9	7.0
PCS127	-	-	8.0	5.4	2.9	7.0
PCS129	-	-	10.0	5.4	2.9	7.0
PCSH127	-	-	8.0	5.4	2.9	7.0

Product Identification

PCS	62B	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
PCS: Standard PCSH: High Current	62B: 6.2×6.6×3.0 64B: 6.2×6.6×5.0 73: 7.3×7.3×3.4 74: 7.3×7.3×4.5 124: 12×12×4.5 125: 12×12×6.0 127: 12×12×8.0 129: 12×12×10.0	K: ±10% M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

Standard Electrical Characteristics

PCS62B Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS62BNT1R5	1.5	±30%	100KHz, 0.25V	0.049	3.500
PCS62BNT2R2	2.2	±30%	100KHz, 0.25V	0.050	2.200
PCS62BNT2R9	2.9	±30%	100KHz, 0.25V	0.070	1.940
PCS62BNT3R3	3.3	±30%	100KHz, 0.25V	0.075	1.800
PCS62BNT4R0	4.0	±30%	100KHz, 0.25V	0.080	1.630
PCS62BNT4R7	4.7	±30%	100KHz, 0.25V	0.090	1.550
PCS62BNT5R5	5.5	±30%	100KHz, 0.25V	0.100	1.400
PCS62BNT6R8	6.8	±30%	100KHz, 0.25V	0.100	1.300
PCS62BMT100	10	±20%	1KHz, 0.25V	0.150	1.100
PCS62BMT120	12	±20%	1KHz, 0.25V	0.200	1.000
PCS62BMT150	15	±20%	1KHz, 0.25V	0.230	0.900
PCS62BMT180	18	±20%	1KHz, 0.25V	0.270	0.800
PCS62BMT220	22	±20%	1KHz, 0.25V	0.340	0.740
PCS62BMT270	27	±20%	1KHz, 0.25V	0.380	0.660
PCS62BMT330	33	±20%	1KHz, 0.25V	0.450	0.590
PCS62BMT390	39	±20%	1KHz, 0.25V	0.490	0.540
PCS62BMT470	47	±20%	1KHz, 0.25V	0.690	0.500
PCS62BMT560	56	±20%	1KHz, 0.25V	0.780	0.460
PCS62BMT680	68	±20%	1KHz, 0.25V	1.070	0.420
PCS62BMT820	82	±20%	1KHz, 0.25V	1.210	0.380
PCS62BMT101	100	±20%	1KHz, 0.25V	1.390	0.340
PCS62BMT121	120	±20%	1KHz, 0.25V	1.900	0.310
PCS62BMT151	150	±20%	1KHz, 0.25V	2.180	0.280
PCS62BMT181	180	±20%	1KHz, 0.25V	2.770	0.260
PCS62BMT221	220	±20%	1KHz, 0.25V	3.120	0.230
PCS62BMT271	270	±20%	1KHz, 0.25V	4.380	0.220
PCS62BMT331	330	±20%	1KHz, 0.25V	4.940	0.190

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS64B Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS64BMT100	10	±20%	1KHz, 0.25V	0.120	1.350
PCS64BMT120	12	±20%	1KHz, 0.25V	0.130	1.220
PCS64BMT150	15	±20%	1KHz, 0.25V	0.180	1.110
PCS64BMT180	18	±20%	1KHz, 0.25V	0.240	1.020
PCS64BMT220	22	±20%	1KHz, 0.25V	0.270	0.910
PCS64BMT270	27	±20%	1KHz, 0.25V	0.300	0.820
PCS64BMT330	33	±20%	1KHz, 0.25V	0.330	0.740
PCS64BMT390	39	±20%	1KHz, 0.25V	0.370	0.690
PCS64BMT470	47	±20%	1KHz, 0.25V	0.520	0.620
PCS64BMT560	56	±20%	1KHz, 0.25V	0.560	0.580
PCS64BMT680	68	±20%	1KHz, 0.25V	0.630	0.510
PCS64BMT820	82	±20%	1KHz, 0.25V	0.710	0.460
PCS64BMT101	100	±20%	1KHz, 0.25V	1.030	0.420
PCS64BMT121	120	±20%	1KHz, 0.25V	1.150	0.380
PCS64BMT151	150	±20%	1KHz, 0.25V	1.680	0.350
PCS64BMT181	180	±20%	1KHz, 0.25V	1.870	0.320
PCS64BMT221	220	±20%	1KHz, 0.25V	2.080	0.290
PCS64BMT271	270	±20%	1KHz, 0.25V	2.370	0.260
PCS64BMT331	330	±20%	1KHz, 0.25V	2.670	0.230
PCS64BMT391	390	±20%	1KHz, 0.25V	2.940	0.220
PCS64BMT471	470	±20%	1KHz, 0.25V	3.930	0.200
PCS64BMT561	560	±20%	1KHz, 0.25V	5.430	0.180
PCS64BMT681	680	±20%	1KHz, 0.25V	7.320	0.170
PCS64BMT821	820	±20%	1KHz, 0.25V	8.240	0.150
PCS64BMT102	1000	±20%	1KHz, 0.25V	9.260	0.140

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS73 Type

Part No	L (µH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS73NT1R0	1.0	±30%	1KHz, 0.25V	0.016	7.970
PCS73NT1R5	1.5	±30%	1KHz, 0.25V	0.023	5.500
PCS73NT2R2	2.2	±30%	1KHz, 0.25V	0.027	4.500
PCS73NT3R3	3.3	±30%	1KHz, 0.25V	0.031	4.000
PCS73NT3R9	3.9	±30%	1KHz, 0.25V	0.041	3.800
PCS73NT4R7	4.7	±30%	1KHz, 0.25V	0.048	3.500
PCS73NT5R6	5.6	±30%	1KHz, 0.25V	0.056	3.000
PCS73NT6R8	6.8	±30%	1KHz, 0.25V	0.062	2.000
PCS73MT100	10	±20%	1KHz, 0.25V	0.072	1.680
PCS73MT120	12	±20%	1KHz, 0.25V	0.098	1.520
PCS73MT150	15	±20%	1KHz, 0.25V	0.130	1.330
PCS73MT180	18	±20%	1KHz, 0.25V	0.140	1.200
PCS73MT220	22	±20%	1KHz, 0.25V	0.190	1.070
PCS73MT220-1	22	±20%	1KHz, 0.25V	0.190	1.380
PCS73MT270	27	±20%	1KHz, 0.25V	0.210	0.960
PCS73MT330	33	±20%	1KHz, 0.25V	0.240	0.910
PCS73MT390	39	±20%	1KHz, 0.25V	0.320	0.770
PCS73MT470	47	±20%	1KHz, 0.25V	0.360	0.760
PCS73MT560	56	±20%	1KHz, 0.25V	0.470	0.680
PCS73MT680	68	±20%	1KHz, 0.25V	0.520	0.610
PCS73MT820	82	±20%	1KHz, 0.25V	0.690	0.570
PCS73MT101	100	±20%	1KHz, 0.25V	0.790	0.500
PCS73MT121	120	±20%	1KHz, 0.25V	0.890	0.490
PCS73MT151	150	±20%	1KHz, 0.25V	1.270	0.430
PCS73MT181	180	±20%	1KHz, 0.25V	1.450	0.390
PCS73MT221	220	±20%	1KHz, 0.25V	1.650	0.350
PCS73MT221-1	220	±20%	1KHz, 1V	1.320	0.420
PCS73MT271	270	±20%	1KHz, 0.25V	2.310	0.320
PCS73MT271-1	270	±20%	1KHz, 1V	2.000	0.370
PCS73MT331	330	±20%	1KHz, 0.25V	2.620	0.280
PCS73MT391	390	±20%	1KHz, 0.25V	2.940	0.260
PCS73MT471	470	±20%	1KHz, 0.25V	4.180	0.240
PCS73MT471-1	470	±20%	100KHz, 0.25V	2.850	0.370
PCS73MT561	560	±20%	1KHz, 0.25V	4.670	0.220
PCS73MT681	680	±20%	1KHz, 0.25V	5.730	0.190
PCS73MT821	820	±20%	1KHz, 0.25V	6.540	0.180
PCS73MT821-1	820	±20%	1KHz, 0.25V	4.821	0.280
PCS73MT102	1000	±20%	1KHz, 0.25V	9.440	0.160
PCS73MT102-1	1000	±20%	100KHz, 0.25V	4.690	0.250

Note: PCS73MT471-1/PCS73MT281-1/PCS73MT102-1 The DC current at which the inductance becomes 30% lower than its initial value

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS74 Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS74NT1R0	1.0	±30%	1KHz, 0.25V	0.020	8.000
PCS74NT1R5	1.5	±30%	1KHz, 0.25V	0.018	7.000
PCS74NT2R2	2.2	±30%	1KHz, 0.25V	0.028	6.000
PCS74NT3R3	3.3	±30%	1KHz, 0.25V	0.032	4.800
PCS74NT3R9	3.9	±30%	1KHz, 0.25V	0.035	4.400
PCS74NT4R7	4.7	±30%	1KHz, 0.25V	0.038	4.000
PCS74NT5R6	5.6	±30%	1KHz, 0.25V	0.040	3.500
PCS74NT6R8	6.8	±30%	1KHz, 0.25V	0.045	3.000
PCS74MT100	10	±20%	1KHz, 0.25V	0.049	1.840
PCS74MT100-2	10	±20%	1KHz, 0.25V	0.049	2.600
PCS74MT120	12	±20%	1KHz, 0.25V	0.058	1.710
PCS74MT150	15	±20%	1KHz, 0.25V	0.081	1.470
PCS74MT180	18	±20%	1KHz, 0.25V	0.091	1.310
PCS74MT220	22	±20%	1KHz, 0.25V	0.110	1.230
PCS74MT270	27	±20%	1KHz, 0.25V	0.150	1.120
PCS74MT330	33	±20%	1KHz, 0.25V	0.170	0.960
PCS74MT330-2	33	±20%	1KHz, 0.25V	0.150±30%	1.450
PCS74MT390	39	±20%	1KHz, 0.25V	0.230	0.910
PCS74MT470	47	±20%	1KHz, 0.25V	0.260	0.880
PCS74MT470-1	47	±20%	1KHz, 0.25V	0.260	1.250
PCS74MT560	56	±20%	1KHz, 0.25V	0.350	0.750
PCS74MT680	68	±20%	1KHz, 0.25V	0.380	0.690
PCS74MT820	82	±20%	1KHz, 0.25V	0.430	0.610
PCS74MT101	100	±20%	1KHz, 0.25V	0.610	0.600
PCS74MT101-2	100	±20%	1KHz, 0.25V	0.4979	0.990
PCS74MT121	120	±20%	1KHz, 0.25V	0.660	0.520
PCS74MT151	150	±20%	1KHz, 0.25V	0.880	0.460
PCS74MT151-1	150	±20%	100KHz, 0.25V	0.880	0.810
PCS74MT181	180	±20%	1KHz, 0.25V	0.980	0.420
PCS74MT221	220	±20%	1KHz, 0.25V	1.170	0.360
PCS74MT271	270	±20%	1KHz, 0.25V	1.640	0.340
PCS74MT331	330	±20%	1KHz, 0.25V	1.860	0.320
PCS74MT331-1	330	±20%	1KHz, 0.25V	1.860	0.450
PCS74MT391	390	±20%	1KHz, 0.25V	2.850	0.290
PCS74MT471	470	±20%	1KHz, 0.25V	3.010	0.260
PCS74MT561	560	±20%	1KHz, 0.25V	3.620	0.230
PCS74MT681	680	±20%	1KHz, 0.25V	4.630	0.220
PCS74MT821	820	±20%	1KHz, 0.25V	5.200	0.200
PCS74MT102	1000	±20%	1KHz, 0.25V	6.000	0.180

Note: PCS74MT151-1 The DC current at which the inductance becomes 30% lower than its initial value

PCS74MT101-2 The DC current at which the inductance becomes 35% lower than its initial value

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS124 Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS124NT1R5	1.5	±30%	100KHz, 0.25V	0.008	8.75
PCS124NT2R5	2.5	±30%	100KHz, 0.25V	0.013	8.00
PCS124NT3R3	3.3	±30%	100KHz, 0.25V	0.015	6.50
PCS124NT3R9	3.9	±30%	100KHz, 0.25V	0.015	6.50
PCS124NT4R7	4.7	±30%	100KHz, 0.25V	0.018	5.70
PCS124NT6R8	6.8	±30%	100KHz, 0.25V	0.023	4.90
PCS124NT8R2	8.2	±30%	100KHz, 0.25V	0.026	4.60
PCS124MT100	10	±20%	100KHz, 0.25V	0.028	4.50
PCS124MT120	12	±20%	100KHz, 0.25V	0.038	4.00
PCS124MT150	15	±20%	100KHz, 0.25V	0.050	3.20
PCS124MT180	18	±20%	100KHz, 0.25V	0.057	3.10
PCS124MT220	22	±20%	100KHz, 0.25V	0.066	2.90
PCS124MT270	27	±20%	100KHz, 0.25V	0.080	2.80
PCS124MT330	33	±20%	100KHz, 0.25V	0.097	2.70
PCS124MT390	39	±20%	100KHz, 0.25V	0.132	2.10
PCS124MT470	47	±20%	100KHz, 0.25V	0.150	1.90
PCS124MT560	56	±20%	100KHz, 0.25V	0.190	1.80
PCS124MT680	68	±20%	100KHz, 0.25V	0.220	1.50
PCS124MT820	82	±20%	100KHz, 0.25V	0.260	1.30
PCS124MT101	100	±20%	100KHz, 0.25V	0.308	1.20
PCS124MT121	120	±20%	100KHz, 0.25V	0.380	1.10
PCS124MT151	150	±20%	100KHz, 0.25V	0.530	0.95
PCS124KT151-1	150	±10%	100KHz, 0.10V	0.440	1.10
PCS124MT181	180	±20%	100KHz, 0.25V	0.620	0.85
PCS124MT221	220	±20%	100KHz, 0.25V	0.700	0.80
PCS124MT271	270	±20%	100KHz, 0.25V	0.876	0.60
PCS124MT331	330	±20%	100KHz, 0.25V	0.990	0.50
PCS124KT331-1	330	±10%	100KHz, 0.10V	0.950	0.75

Note: PCS124KT331-1 The DC current at which the inductance becomes 30% lower than its initial value

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS125 Type

Part No	L (μ H)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS125NT1R3	1.3	$\pm 30\%$	100KHz, 0.25V	0.012	8.00
PCS125NT2R1	2.1	$\pm 30\%$	100KHz, 0.25V	0.014	7.00
PCS125NT2R2	2.2	$\pm 30\%$	100KHz, 0.25V	0.014	7.00
PCS125NT3R1	3.1	$\pm 30\%$	100KHz, 0.25V	0.017	6.00
PCS125NT3R3	3.3	$\pm 30\%$	100KHz, 0.25V	0.014	6.75
PCS125NT4R4	4.4	$\pm 30\%$	100KHz, 0.25V	0.020	5.00
PCS125NT4R7	4.7	$\pm 30\%$	100KHz, 0.25V	0.018	6.20
PCS125NT5R8	5.8	$\pm 30\%$	100KHz, 0.25V	0.021	4.40
PCS125NT6R8	6.8	$\pm 30\%$	100KHz, 0.25V	0.023	5.90
PCS125NT7R5	7.5	$\pm 30\%$	100KHz, 0.25V	0.024	4.20
PCS125NT8R2	8.2	$\pm 30\%$	100KHz, 0.25V	0.024	4.10
PCS125MT100	10	$\pm 20\%$	1KHz, 0.25V	0.025	4.00
PCS125MT100-1	10	$\pm 20\%$	100KHz, 0.25V	0.0265	5.25
PCS125MT120	12	$\pm 20\%$	1KHz, 0.25V	0.027	3.50
PCS125MT150	15	$\pm 20\%$	1KHz, 0.25V	0.030	3.30
PCS125MT150-1	15	$\pm 20\%$	1KHz, 0.25V	0.030	4.55
PCS125MT180	18	$\pm 20\%$	1KHz, 0.25V	0.034	3.00
PCS125MT220	22	$\pm 20\%$	1KHz, 0.25V	0.036	2.80
PCS125MT270	27	$\pm 20\%$	1KHz, 0.25V	0.051	2.30
PCS125MT270-1	27	$\pm 20\%$	1KHz, 0.25V	0.051	3.55
PCS125MT330	33	$\pm 20\%$	1KHz, 0.25V	0.057	2.10
PCS125MT390	39	$\pm 20\%$	1KHz, 0.25V	0.068	2.00
PCS125MT470	47	$\pm 20\%$	1KHz, 0.25V	0.075	1.80
PCS125MT560	56	$\pm 20\%$	1KHz, 0.25V	0.110	1.70
PCS125MT680	68	$\pm 20\%$	1KHz, 0.25V	0.120	1.50
PCS125MT680-1	68	$\pm 20\%$	1KHz, 0.25V	0.110 $\pm 30\%$	2.70
PCS125MT820	82	$\pm 20\%$	1KHz, 0.25V	0.140	1.40
PCS125MT101	100	$\pm 20\%$	1KHz, 0.25V	0.160	1.30
PCS125MT121	120	$\pm 20\%$	1KHz, 0.25V	0.170	1.10
PCS125MT151	150	$\pm 20\%$	1KHz, 0.25V	0.230	1.00
PCS125MT181	180	$\pm 20\%$	1KHz, 0.25V	0.290	0.90
PCS125MT221	220	$\pm 20\%$	1KHz, 0.25V	0.400	0.80
PCS125MT271	270	$\pm 20\%$	1KHz, 0.25V	0.460	0.75
PCS125MT331	330	$\pm 20\%$	1KHz, 0.25V	0.510	0.68
PCS125MT391	390	$\pm 20\%$	1KHz, 0.25V	0.690	0.65
PCS125MT471	470	$\pm 20\%$	1KHz, 0.25V	0.770	0.58
PCS125MT561	560	$\pm 20\%$	1KHz, 0.25V	0.860	0.54
PCS125MT681	680	$\pm 20\%$	1KHz, 0.25V	1.200	0.48
PCS125MT821	820	$\pm 20\%$	1KHz, 0.25V	1.340	0.43
PCS125MT102	1000	$\pm 20\%$	1KHz, 0.25V	1.530	0.40
PCS125MT152	1500	$\pm 20\%$	1KHz, 0.25V	2.800	0.50

Note: PCS125MT680-1 The DC current at which the inductance becomes 35% lower than its initial value

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS127 Type

Part No	L (µH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS127NT1R0	1.0	±30%	100KHz, 0.25V	0.007	10.00
PCS127NT1R2	1.2	±30%	100KHz, 0.25V	0.007	9.80
PCS127NT1R8	1.8	±30%	100KHz, 0.25V	0.011	8.50
PCS127NT2R2	2.2	±30%	100KHz, 0.25V	0.010	8.50
PCS127NT2R4	2.4	±30%	100KHz, 0.25V	0.012	8.00
PCS127NT2R7	2.7	±30%	100KHz, 0.25V	0.012	8.00
PCS127NT3R3	3.3	±30%	100KHz, 0.25V	0.013	7.80
PCS127NT3R5	3.5	±30%	100KHz, 0.25V	0.014	7.50
PCS127NT4R7	4.7	±30%	100KHz, 0.25V	0.016	6.80
PCS127NT5R6	5.6	±30%	100KHz, 0.25V	0.014	6.70
PCS127NT6R1	6.1	±30%	100KHz, 0.25V	0.018	6.60
PCS127NT6R8	6.8	±30%	100KHz, 0.25V	0.014	6.40
PCS127NT7R6	7.6	±30%	100KHz, 0.25V	0.020	5.90
PCS127NT8R2	8.2	±30%	100KHz, 0.25V	0.016	6.32
PCS127MT100	10	±20%	1KHz, 0.25V	0.022	5.40
PCS127MT120	12	±20%	1KHz, 0.25V	0.024	4.90
PCS127MT150	15	±20%	1KHz, 0.25V	0.027	4.50
PCS127MT180	18	±20%	1KHz, 0.25V	0.039	3.90
PCS127MT220	22	±20%	1KHz, 0.25V	0.043	3.60
PCS127MT220-2	22	±20%	1KHz, 0.25V	0.043	5.00
PCS127MT220-3	22	±20%	1KHz, 0.25V	0.048	5.80
PCS127MT270	27	±20%	1KHz, 0.25V	0.046	3.40
PCS127MT330	33	±20%	1KHz, 0.25V	0.065	3.00
PCS127MT330-2	33	±20%	100KHz, 1V	0.053	4.30
PCS127MT390	39	±20%	1KHz, 0.25V	0.073	2.75
PCS127MT470	47	±20%	1KHz, 0.25V	0.100	2.50
PCS127MT560	56	±20%	1KHz, 0.25V	0.110	2.35
PCS127MT560-1	56	±20%	1KHz, 0.25V	0.110	2.90
PCS127MT680	68	±20%	1KHz, 0.25V	0.140	2.10
PCS127MT820	82	±20%	1KHz, 0.25V	0.160	1.95
PCS127MT101	100	±20%	1KHz, 0.25V	0.220	1.70
PCS127MT101-1	100	±20%	1KHz, 1V	0.150	2.00
PCS127MT101-2	100	±20%	1KHz, 0.25V	0.220	2.40
PCS127MT121	120	±20%	1KHz, 0.25V	0.250	1.60
PCS127MT151	150	±20%	1KHz, 0.25V	0.280	1.42
PCS127MT151-1	150	±20%	1KHz, 0.25V	0.227	1.80
PCS127MT181	180	±20%	1KHz, 0.25V	0.350	1.30
PCS127MT221	220	±20%	1KHz, 0.25V	0.390	1.16
PCS127MT271	270	±20%	1KHz, 0.25V	0.560	1.06
PCS127MT331	330	±20%	1KHz, 0.25V	0.640	0.95
PCS127MT391	390	±20%	1KHz, 0.25V	0.700	0.88
PCS127MT471	470	±20%	1KHz, 0.25V	0.980	0.79
PCS127MT561	560	±20%	1KHz, 0.25V	1.070	0.73
PCS127MT681	680	±20%	1KHz, 0.25V	1.460	0.67
PCS127MT821	820	±20%	1KHz, 0.25V	1.640	0.60
PCS127MT102	1000	±20%	1KHz, 0.25V	1.820	0.55
PCS127MT222-1	2200	±20%	100KHz, 0.25V	3.250	0.65

Note: PCS127MT222-1 The DC current at which the inductance becomes 30% lower than its initial value

PCS127MT220-3/ PCS127MT330-2 The DC current at which the inductance becomes 35% lower than its initial value

■ Viking is capable to design according to customer special requirement

Standard Electrical Characteristics

PCS129 Type

Part No	L (μH)	Tolerance	Test Condition	RDC (Ω) max.	IDC (A) max.
PCS129NT1R0	1.0	±30%	100KHz, 0.25V	0.007	17.00
PCS129NT1R5	1.5	±30%	100KHz, 0.25V	0.005	16.00
PCS129NT2R4	2.4	±30%	100KHz, 0.25V	0.006	15.00
PCS129NT3R3	3.3	±30%	100KHz, 0.25V	0.009	14.00
PCS129NT3R5	3.5	±30%	100KHz, 0.25V	0.009	14.00
PCS129NT6R8	6.8	±30%	100KHz, 0.25V	0.013	10.00
PCS129NT8R2	8.2	±30%	100KHz, 0.25V	0.015	8.20
PCS129MT100	10	±20%	1KHz, 0.25V	0.018	7.50
PCS129MT120	12	±20%	1KHz, 0.25V	0.019	7.00
PCS129MT150	15	±20%	1KHz, 0.25V	0.024	6.00
PCS129MT180	18	±20%	1KHz, 0.25V	0.031	5.50
PCS129MT220	22	±20%	1KHz, 0.25V	0.039	5.00
PCS129MT270	27	±20%	1KHz, 0.25V	0.040	5.80
PCS129MT330	33	±20%	1KHz, 0.25V	0.050	4.00
PCS129MT390	39	±20%	1KHz, 0.25V	0.059	3.80
PCS129MT470	47	±20%	1KHz, 0.25V	0.069	3.50
PCS129MT560	56	±20%	1KHz, 0.25V	0.079	3.20
PCS129MT680	68	±20%	1KHz, 0.25V	0.088	3.00
PCS129MT820	82	±20%	1KHz, 0.25V	0.110	2.60
PCS129MT101	100	±20%	1KHz, 0.25V	0.140	2.20
PCS129MT121	120	±20%	1KHz, 0.25V	0.160	2.00
PCS129MT151	150	±20%	1KHz, 0.25V	0.200	1.80
PCS129MT181	180	±20%	1KHz, 0.25V	0.270	1.60
PCS129MT221	220	±20%	1KHz, 0.25V	0.300	1.50
PCS129MT271	270	±20%	1KHz, 0.25V	0.400	1.30
PCS129MT331	330	±20%	1KHz, 0.25V	0.450	1.20
PCS129MT391	390	±20%	1KHz, 0.25V	0.550	1.10
PCS129□T471	470	±20%, ±10%	1KHz, 0.25V	0.600	1.00
PCS129MT561	560	±20%	1KHz, 0.25V	0.700	0.90
PCS129MT681	680	±20%	1KHz, 0.25V	0.840	0.82
PCS129MT821	820	±20%	1KHz, 0.25V	1.060	0.80
PCS129MT102	1000	±20%	1KHz, 0.25V	1.270	0.76

■ Viking is capable to design according to customer special requirement

High Current Electrical Characteristics

PCSH127 Type

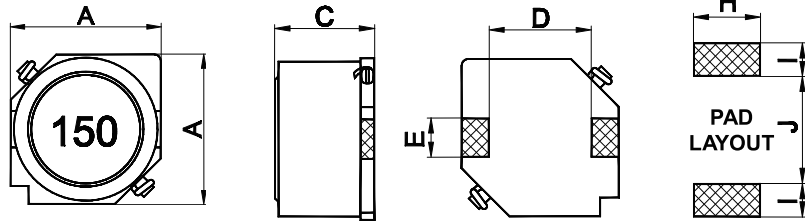
Part No	L (uH)	Tolerance	Test Condition	DCR (Ω) Max	IDC (A) Max
PCSH127NT2R2	2.2	±30%	100KHz, 0.25V	0.007	25.5
PCSH127NT4R7	4.7	±30%	100KHz, 0.25V	0.016	15.9
PCSH127NT5R6	5.6	±30%	100KHz, 0.25V	0.020	14.0
PCSH127NT6R8	6.8	±30%	100KHz, 0.25V	0.021	13.3
PCSH127NT8R2	8.2	±30%	100KHz, 0.25V	0.023	12.2
PCSH127MT100	10	±20%	100KHz, 0.25V	0.024	11.2
PCSH127MT150	15	±20%	100KHz, 0.25V	0.031	9.00
PCSH127MT180	18	±20%	100KHz, 0.25V	0.035	7.70
PCSH127MT220	22	±20%	100KHz, 0.25V	0.040	7.57
PCSH127MT330	33	±20%	100KHz, 0.25V	0.070	6.22
PCSH127MT390	39	±20%	100KHz, 0.25V	0.075	5.40
PCSH127MT470	47	±20%	100KHz, 0.25V	0.080	5.28
PCSH127MT560	56	±20%	100KHz, 0.25V	0.130	4.50
PCSH127MT680	68	±20%	100KHz, 0.25V	0.105	4.26
PCSH127MT820	82	±20%	100KHz, 0.25V	0.143	3.80
PCSH127MT101	100	±20%	100KHz, 0.25V	0.163	3.52
PCSH127MT121	120	±20%	100KHz, 0.25V	0.170	3.20
PCSH127MT151	150	±20%	100KHz, 0.25V	0.247	3.01
PCSH127MT221	220	±20%	100KHz, 0.25V	0.376	2.36
PCSH127MT331	330	±20%	100KHz, 0.25V	0.574	2.00
PCSH127MT391	390	±20%	100KHz, 0.25V	0.650	1.50
PCSH127MT471	470	±20%	100KHz, 0.25V	0.861	1.64
PCSH127MT681	680	±20%	100KHz, 0.25V	1.080	1.38
PCSH127MT821	820	±20%	100KHz, 0.25V	1.470	1.26
PCSH127MT102	1000	±20%	100KHz, 0.25V	1.660	1.14

■ Viking is capable to design according to customer special requirement

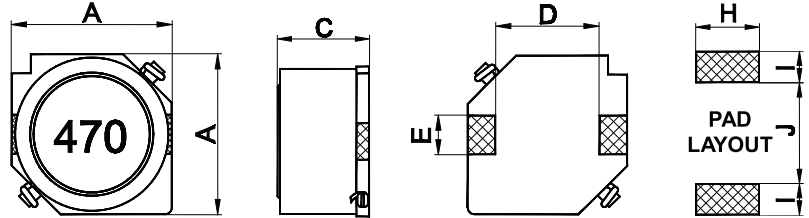
Shielded SMD Power Inductor – PCDR



PCDR 0728 / 0730 / 0732 / 0745 / 1045



PCDR 0628 / 1255 / 1265 / 1275



Features

- Compact, low profile with low DCR and large current
- With magnetically shielded against radiation
- Flat bottom surface allows reliable mounting onto the board
- Available on tape and reel for auto surface mounting

Applications

- Portable Telephones
- Personal Computers
- DC/DC Converters, etc.
- Other Various Electronic Appliances

Characteristics

- Saturation Rated Current (I sat): The current when the inductance becomes 30% lower than its nominal value. (Ta=25°C)
- Temperature Rated Current (I rms): The actual current when the temperature of coil becomes to $\Delta 40^{\circ}\text{C}$. (Ta=25°C)
- Operating temperature range: $-40\sim 125^{\circ}\text{C}$
- Storage Temperature: $0\sim 35^{\circ}\text{C}$; Humidity 25~80%RH

Dimensions

Unit: mm

Type	A	C	D	E	H	I	J
PCDR0628	6.0±0.20	2.8±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0728	7.0±0.20	2.8±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0730	7.0±0.20	3.0±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0732	7.0±0.20	3.2±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0745	7.0±0.20	4.5±0.30	4.00	2.00	2.20	1.50	4.00
PCDR1045	10.1±0.30	4.5±0.30	6.00	3.00	3.20	2.50	5.60
PCDR1255	12.5±0.30	5.5±0.35	8.60	3.00	3.20	2.50	8.60
PCDR1265	12.5±0.30	6.5±0.35	8.60	3.00	3.20	2.50	8.60
PCDR1275	12.5±0.30	7.5±0.35	8.60	3.00	3.20	2.50	8.60

Inductance and rated current ranges

- PCDR0628 1.0~1000μH 2.1~0.12A
- PCDR0728 3.3~56μH 1.6~0.5A
- PCDR0730 3.3~100μH 1.8~0.35A
- PCDR0732 1.0~1000μH 2.2~0.13A
- PCDR0745 1.0~1500μH 4.0~0.10A
- PCDR1045 1.0~1500μH 7.8~0.22A
- PCDR1255 6.0~1500μH 3.6~0.29A
- PCDR1265 2.0~150μH 10~1.00A
- PCDR1275 1.2~330μH 13~1.10A
- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

PCDR	0628	M	T	101
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0628: 6.0×2.8 0728: 7.0×2.8 0730: 7.0×3.0 0732: 7.0×3.2 0745: 7.0×4.5 1045: 10.1×4.5 1255: 12.5×5.5 1265: 12.5×6.5 1275: 12.5×7.5	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

■ Electrical Characteristics

PCDR0628 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) ±20%	IDC (A) max.
PCDR0628MT1R0	1.0	±20%	1KHz, 0.5V	0.024	2.10
PCDR0628MT1R5	1.5	±20%	1KHz, 0.5V	0.025	2.00
PCDR0628MT1R8	1.8	±20%	1KHz, 0.5V	0.026	1.95
PCDR0628MT2R2	2.2	±20%	1KHz, 0.5V	0.022	1.90
PCDR0628MT2R8	2.8	±20%	1KHz, 0.5V	0.025	1.80
PCDR0628MT3R5	3.5	±20%	1KHz, 0.5V	0.030	1.70
PCDR0628MT4R1	4.1	±20%	1KHz, 0.5V	0.035	1.65
PCDR0628MT4R7	4.7	±20%	1KHz, 0.5V	0.036	1.60
PCDR0628MT6R8	6.8	±20%	1KHz, 0.5V	0.052	1.50
PCDR0628MT8R2	8.2	±20%	1KHz, 0.5V	0.061	1.35
PCDR0628MT100	10	±20%	1KHz, 0.5V	0.068	1.30
PCDR0628MT120	12	±20%	1KHz, 0.5V	0.081	1.10
PCDR0628MT150	15	±20%	1KHz, 0.5V	0.100	1.00
PCDR0628MT180	18	±20%	1KHz, 0.5V	0.129	0.87
PCDR0628MT220	22	±20%	1KHz, 0.5V	0.120	0.77
PCDR0628MT270	27	±20%	1KHz, 0.5V	0.179	0.71
PCDR0628MT330	33	±20%	1KHz, 0.5V	0.180	0.69
PCDR0628MT390	39	±20%	1KHz, 0.5V	0.239	0.61
PCDR0628MT470	47	±20%	1KHz, 0.5V	0.270	0.59
PCDR0628MT560	56	±20%	1KHz, 0.5V	0.330	0.51
PCDR0628MT680	68	±20%	1KHz, 0.5V	0.390	0.50
PCDR0628MT820	82	±20%	1KHz, 0.5V	0.459	0.43
PCDR0628MT101	100	±20%	1KHz, 0.5V	0.620	0.42
PCDR0628MT121	120	±20%	1KHz, 0.5V	0.659	0.33
PCDR0628MT151	150	±20%	1KHz, 0.5V	0.919	0.30
PCDR0628MT181	180	±20%	1KHz, 0.5V	1.049	0.28
PCDR0628MT221	220	±20%	1KHz, 0.5V	1.219	0.25
PCDR0628MT271	270	±20%	1KHz, 0.5V	1.598	0.22
PCDR0628MT331	330	±20%	1KHz, 0.5V	1.789	0.21
PCDR0628MT391	390	±20%	1KHz, 0.5V	2.289	0.20
PCDR0628MT471	470	±20%	1KHz, 0.5V	2.698	0.18
PCDR0628MT561	560	±20%	1KHz, 0.5V	3.198	0.16
PCDR0628MT681	680	±20%	1KHz, 0.5V	4.310	0.15
PCDR0628MT821	820	±20%	1KHz, 0.5V	4.698	0.13
PCDR0628MT102	1000	±20%	1KHz, 0.5V	5.790	0.12

PCDR0728 Type

Part No	L (μH)	Tolerance	Test Condition	PDCR (Ω) ±20%	IDC (A) max.
PCDR0728MT3R3	3.3	±20%	1KHz, 0.5V	0.037	1.60
PCDR0728MT4R7	4.7	±20%	1KHz, 0.5V	0.045	1.50
PCDR0728MT6R8	6.8	±20%	1KHz, 0.5V	0.059	1.30
PCDR0728MT100	10	±20%	1KHz, 0.5V	0.083	1.10
PCDR0728MT150	15	±20%	1KHz, 0.5V	0.130	0.88
PCDR0728MT220	22	±20%	1KHz, 0.5V	0.180	0.75
PCDR0728MT330	33	±20%	1KHz, 0.5V	0.240	0.65
PCDR0728MT470	47	±20%	1KHz, 0.5V	0.340	0.54
PCDR0728MT560	56	±20%	1KHz, 0.5V	0.420	0.50

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCDR0730 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$	IDC (A) max.
PCDR0730MT3R3	3.3	$\pm 20\%$	1KHz, 0.5V	0.023	1.80
PCDR0730MT4R7	4.7	$\pm 20\%$	1KHz, 0.5V	0.036	1.60
PCDR0730MT6R8	6.8	$\pm 20\%$	1KHz, 0.5V	0.041	1.50
PCDR0730MT100	10	$\pm 20\%$	1KHz, 0.5V	0.053	1.30
PCDR0730MT150	15	$\pm 20\%$	1KHz, 0.5V	0.084	1.00
PCDR0730MT220	22	$\pm 20\%$	1KHz, 0.5V	0.110	0.86
PCDR0730MT330	33	$\pm 20\%$	1KHz, 0.5V	0.160	0.65
PCDR0730MT470	47	$\pm 20\%$	1KHz, 0.5V	0.240	0.57
PCDR0730MT560	56	$\pm 20\%$	1KHz, 0.5V	0.280	0.53
PCDR0730MT680	68	$\pm 20\%$	1KHz, 0.5V	0.310	0.49
PCDR0730MT101	100	$\pm 20\%$	1KHz, 0.5V	0.450	0.35

PCDR0732 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$	IDC (A) max.
PCDR0732MT1R0	1.0	$\pm 20\%$	1KHz, 0.5V	0.019	2.20
PCDR0732MT2R2	2.2	$\pm 20\%$	1KHz, 0.5V	0.021	2.00
PCDR0732MT3R3	3.3	$\pm 20\%$	1KHz, 0.5V	0.023	1.90
PCDR0732MT3R9	3.9	$\pm 20\%$	1KHz, 0.5V	0.029	1.85
PCDR0732MT4R7	4.7	$\pm 20\%$	1KHz, 0.5V	0.036	1.70
PCDR0732MT5R6	5.6	$\pm 20\%$	1KHz, 0.5V	0.039	1.65
PCDR0732MT6R8	6.8	$\pm 20\%$	1KHz, 0.5V	0.041	1.60
PCDR0732MT8R2	8.2	$\pm 20\%$	1KHz, 0.5V	0.049	1.50
PCDR0732MT100	10	$\pm 20\%$	1KHz, 0.5V	0.053	1.40
PCDR0732MT120	12	$\pm 20\%$	1KHz, 0.5V	0.071	1.20
PCDR0732MT150	15	$\pm 20\%$	1KHz, 0.5V	0.075	1.10
PCDR0732MT180	18	$\pm 20\%$	1KHz, 0.5V	0.099	1.00
PCDR0732MT220	22	$\pm 20\%$	1KHz, 0.5V	0.110	0.96
PCDR0732MT270	27	$\pm 20\%$	1KHz, 0.5V	0.150	0.85
PCDR0732MT330	33	$\pm 20\%$	1KHz, 0.5V	0.160	0.75
PCDR0732MT390	39	$\pm 20\%$	1KHz, 0.5V	0.230	0.70
PCDR0732MT470	47	$\pm 20\%$	1KHz, 0.5V	0.240	0.67
PCDR0732MT560	56	$\pm 20\%$	1KHz, 0.5V	0.300	0.60
PCDR0732MT680	68	$\pm 20\%$	1KHz, 0.5V	0.310	0.59
PCDR0732MT820	82	$\pm 20\%$	1KHz, 0.5V	0.424	0.49
PCDR0732MT101	100	$\pm 20\%$	1KHz, 0.5V	0.450	0.45
PCDR0732MT121	120	$\pm 20\%$	1KHz, 0.5V	0.620	0.40
PCDR0732MT151	150	$\pm 20\%$	1KHz, 0.5V	0.650	0.37
PCDR0732MT181	180	$\pm 20\%$	1KHz, 0.5V	1.020	0.30
PCDR0732MT221	220	$\pm 20\%$	1KHz, 0.5V	1.050	0.29
PCDR0732MT271	270	$\pm 20\%$	1KHz, 0.5V	1.530	0.24
PCDR0732MT331	330	$\pm 20\%$	1KHz, 0.5V	1.670	0.22
PCDR0732MT391	390	$\pm 20\%$	1KHz, 0.5V	1.990	0.21
PCDR0732MT471	470	$\pm 20\%$	1KHz, 0.5V	2.050	0.20
PCDR0732MT561	560	$\pm 20\%$	1KHz, 0.5V	3.100	0.17
PCDR0732MT681	680	$\pm 20\%$	1KHz, 0.5V	3.150	0.16
PCDR0732MT821	820	$\pm 20\%$	1KHz, 0.5V	4.500	0.14
PCDR0732MT102	1000	$\pm 20\%$	1KHz, 0.5V	4.780	0.13

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCDR0745 Type

Part No	L (µH)	Tolerance	Test Condition	DCR (Ω) ±20%	IDC (A) max.
PCDR0745MT1R0	1.0	±20%	1KHz, 0.5V	0.019	4.00
PCDR0745MT1R2	1.2	±20%	1KHz, 0.5V	0.019	3.20
PCDR0745MT3R3	3.3	±20%	1KHz, 0.5V	0.020	2.50
PCDR0745MT4R7	4.7	±20%	1KHz, 0.5V	0.029	2.00
PCDR0745MT6R8	6.8	±20%	1KHz, 0.5V	0.039	1.70
PCDR0745MT100	10	±20%	1KHz, 0.5V	0.036	1.30
PCDR0745MT150	15	±20%	1KHz, 0.5V	0.052	1.10
PCDR0745MT220	22	±20%	1KHz, 0.5V	0.061	0.90
PCDR0745MT330	33	±20%	1KHz, 0.5V	0.096	0.82
PCDR0745MT470	47	±20%	1KHz, 0.5V	0.125	0.75
PCDR0745MT560	56	±20%	1KHz, 0.5V	0.130	0.67
PCDR0745MT680	68	±20%	1KHz, 0.5V	0.200	0.60
PCDR0745MT820	82	±20%	1KHz, 0.5V	0.244	0.52
PCDR0745MT101	100	±20%	1KHz, 0.5V	0.250	0.50
PCDR0745MT151	150	±20%	1KHz, 0.5V	0.480	0.40
PCDR0745MT221	220	±20%	1KHz, 0.5V	0.850	0.33
PCDR0745MT331	330	±20%	1KHz, 0.5V	1.100	0.25
PCDR0745MT471	470	±20%	1KHz, 0.5V	1.050	0.22
PCDR0745MT681	680	±20%	1KHz, 0.5V	2.080	0.20
PCDR0745MT102	1000	±20%	1KHz, 0.5V	2.280	0.14
PCDR0745MT152	1500	±20%	1KHz, 0.5V	3.500	0.10

PCDR1045 Type

Part No	L (µH)	Tolerance	Test Condition	DCR (Ω) ±20%	IDC (A) max.
PCDR1045MT1R0	1.0	±20%	1KHz, 0.5V	0.012	7.80
PCDR1045MT1R5	1.5	±20%	1KHz, 0.5V	0.014	5.80
PCDR1045MT2R2	2.2	±20%	1KHz, 0.5V	0.015	5.60
PCDR1045MT3R3	3.3	±20%	1KHz, 0.5V	0.016	5.10
PCDR1045MT3R9	3.9	±20%	1KHz, 0.5V	0.018	4.10
PCDR1045MT4R7	4.7	±20%	1KHz, 0.5V	0.020	3.70
PCDR1045MT5R6	5.6	±20%	1KHz, 0.5V	0.022	3.40
PCDR1045MT6R8	6.8	±20%	1KHz, 0.5V	0.025	3.20
PCDR1045MT8R2	8.2	±20%	1KHz, 0.5V	0.027	3.10
PCDR1045MT100	10	±20%	1KHz, 0.5V	0.036	3.00
PCDR1045MT120	12	±20%	1KHz, 0.5V	0.033	2.50
PCDR1045MT150	15	±20%	1KHz, 0.5V	0.047	2.40
PCDR1045MT180	18	±20%	1KHz, 0.5V	0.052	2.20
PCDR1045MT220	22	±20%	1KHz, 0.5V	0.059	2.10
PCDR1045MT270	27	±20%	1KHz, 0.5V	0.073	1.70
PCDR1045MT330	33	±20%	1KHz, 0.5V	0.082	1.60
PCDR1045MT390	39	±20%	1KHz, 0.5V	0.099	1.50
PCDR1045MT470	47	±20%	1KHz, 0.5V	0.100	1.40
PCDR1045MT560	56	±20%	1KHz, 0.5V	0.110	1.30
PCDR1045MT680	68	±20%	1KHz, 0.5V	0.140	1.20
PCDR1045MT820	82	±20%	1KHz, 0.5V	0.190	1.10
PCDR1045MT101	100	±20%	1KHz, 0.5V	0.200	1.00
PCDR1045MT121	120	±20%	1KHz, 0.5V	0.280	0.80
PCDR1045MT151	150	±20%	1KHz, 0.5V	0.350	0.79
PCDR1045MT181	180	±20%	1KHz, 0.5V	0.420	0.69
PCDR1045MT221	220	±20%	1KHz, 0.5V	0.470	0.65
PCDR1045MT271	270	±20%	1KHz, 0.5V	0.620	0.55
PCDR1045MT331	330	±20%	1KHz, 0.5V	0.680	0.54
PCDR1045MT391	390	±20%	1KHz, 0.5V	0.900	0.49
PCDR1045MT471	470	±20%	1KHz, 0.5V	1.030	0.47
PCDR1045MT561	560	±20%	1KHz, 0.5V	1.300	0.40
PCDR1045MT681	680	±20%	1KHz, 0.5V	1.600	0.38
PCDR1045MT821	820	±20%	1KHz, 0.5V	1.800	0.33
PCDR1045MT102	1000	±20%	1KHz, 0.5V	2.800	0.32
PCDR1045MT152	1500	±20%	1KHz, 0.5V	3.400	0.22

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PCDR1255 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$	IDC (A) max.	
					I sat	I rms
PCDR1255NT6R0	6.0	$\pm 30\%$	1KHz, 0.5V	0.016	3.60	4.90
PCDR1255MT100	10	$\pm 20\%$	1KHz, 0.5V	0.022	3.40	4.30
PCDR1255MT150	15	$\pm 20\%$	1KHz, 0.5V	0.026	2.80	3.90
PCDR1255MT220	22	$\pm 20\%$	1KHz, 0.5V	0.034	2.30	3.40
PCDR1255MT330	33	$\pm 20\%$	1KHz, 0.5V	0.042	1.90	3.10
PCDR1255MT470	47	$\pm 20\%$	1KHz, 0.5V	0.062	1.60	2.50
PCDR1255MT560	56	$\pm 20\%$	1KHz, 0.5V	0.075	1.45	2.30
PCDR1255MT680	68	$\pm 20\%$	1KHz, 0.5V	0.083	1.30	2.20
PCDR1255MT101	100	$\pm 20\%$	1KHz, 0.5V	0.117	1.10	1.80
PCDR1255MT151	150	$\pm 20\%$	1KHz, 0.5V	0.190	0.88	1.40
PCDR1255MT221	220	$\pm 20\%$	1KHz, 0.5V	0.270	0.72	1.20
PCDR1255MT331	330	$\pm 20\%$	1KHz, 0.5V	0.410	0.59	1.00
PCDR1255MT471	470	$\pm 20\%$	1KHz, 0.5V	0.520	0.49	0.88
PCDR1255MT681	680	$\pm 20\%$	1KHz, 0.5V	0.760	0.43	0.73
PCDR1255MT102	1000	$\pm 20\%$	1KHz, 0.5V	1.120	0.34	0.60
PCDR1255MT152	1500	$\pm 20\%$	1KHz, 0.5V	1.730	0.29	0.48

PCDR1265 Type

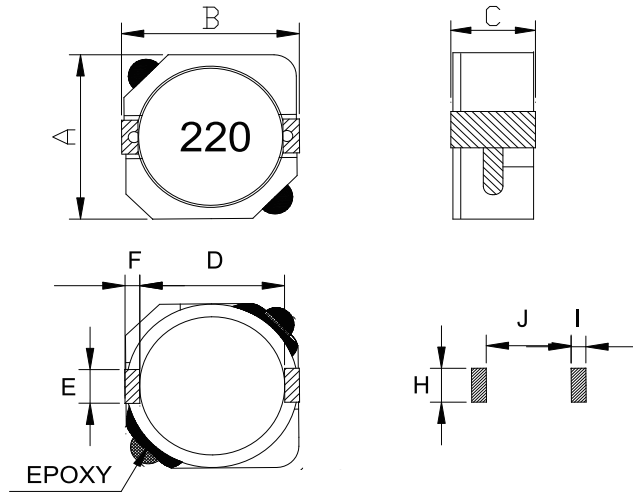
Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$	IDC (A) max.	
					I sat	I rms
PCDR1265NT2R0	2.0	$\pm 30\%$	1KHz, 0.5V	0.012	10.00	8.00
PCDR1265NT4R2	4.2	$\pm 30\%$	1KHz, 0.5V	0.015	7.30	5.80
PCDR1265MT7R0	7.0	$\pm 20\%$	1KHz, 0.5V	0.018	5.70	4.50
PCDR1265MT100	10	$\pm 20\%$	1KHz, 0.5V	0.020	5.00	4.50
PCDR1265MT150	15	$\pm 20\%$	1KHz, 0.5V	0.024	4.20	4.40
PCDR1265MT220	22	$\pm 20\%$	1KHz, 0.5V	0.032	3.50	2.80
PCDR1265MT330	33	$\pm 20\%$	1KHz, 0.5V	0.041	2.80	2.20
PCDR1265MT470	47	$\pm 20\%$	1KHz, 0.5V	0.058	2.40	1.90
PCDR1265MT560	56	$\pm 20\%$	1KHz, 0.5V	0.075	2.20	1.70
PCDR1265MT680	68	$\pm 20\%$	1KHz, 0.5V	0.079	2.00	1.60
PCDR1265MT101	100	$\pm 20\%$	1KHz, 0.5V	0.123	1.60	1.30
PCDR1265MT121	120	$\pm 20\%$	1KHz, 0.5V	0.184	1.30	1.00
PCDR1265MT151	150	$\pm 20\%$	1KHz, 0.5V	0.273	1.00	0.80

PCDR1275 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$	IDC (A) max.	
					I sat	I rms
PCDR1275□T1R2	1.2	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.007	13.00	10.40
PCDR1275□T2R0	2.0	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.008	11.00	8.80
PCDR1275□T2R7	2.7	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.009	10.00	8.00
PCDR1275□T3R3	3.3	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.010	9.50	7.60
PCDR1275□T3R9	3.9	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.010	9.00	7.20
PCDR1275□T5R6	5.6	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.012	7.80	6.20
PCDR1275□T6R8	6.8	$\pm 30\%$, $\pm 20\%$	1KHz, 0.5V	0.013	7.20	5.90
PCDR1275MT100	10	$\pm 20\%$	1KHz, 0.5V	0.016	5.50	4.40
PCDR1275MT150	15	$\pm 20\%$	1KHz, 0.5V	0.018	4.70	3.70
PCDR1275MT220	22	$\pm 20\%$	1KHz, 0.5V	0.026	4.00	3.50
PCDR1275MT330	33	$\pm 20\%$	1KHz, 0.5V	0.039	3.20	3.40
PCDR1275MT390	39	$\pm 20\%$	1KHz, 0.5V	0.044	3.00	3.10
PCDR1275MT470	47	$\pm 20\%$	1KHz, 0.5V	0.053	2.70	3.00
PCDR1275MT560	56	$\pm 20\%$	1KHz, 0.5V	0.069	2.30	1.80
PCDR1275MT680	68	$\pm 20\%$	1KHz, 0.5V	0.078	2.00	2.40
PCDR1275MT820	82	$\pm 20\%$	1KHz, 0.5V	0.110	1.95	1.50
PCDR1275MT101	100	$\pm 20\%$	1KHz, 0.5V	0.125	1.90	1.50
PCDR1275MT151	150	$\pm 20\%$	1KHz, 0.5V	0.175	1.60	1.30
PCDR1275MT181	180	$\pm 20\%$	1KHz, 0.5V	0.200	1.45	1.20
PCDR1275MT221	220	$\pm 20\%$	1KHz, 0.5V	0.258	1.30	1.00
PCDR1275MT331	330	$\pm 20\%$	1KHz, 0.5V	0.370	1.10	0.88

■ Viking is capable to design according to customer special requirement

Shielded SMD Power Inductor – PSDB



Features

- Directly connected electrode on ferrite core
- High power, High saturation inductors
- Ideal inductors for DC/DC converters
- With magnetically shielded against radiation
- Available on tape and reel for automatic surface mounting.

Applications

- Power Supply for VTRs
- LCD Televisions
- Notebook PCs
- Portable Communication
- DC/DC Converters, etc.

Characteristics

- Rated DC current: The current when the inductance becomes 35% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 0~35°C; Humidity 25~80%RH

Dimensions

Unit: mm

Type	A max.	B max.	C max.	D	E	F	H	I	J
PSDB5D28	6.2	6.3	3.0	4.7	2.0	0.6	2.6	1.0	4.6
PSDB1003	10.3	10.4	3.1	7.7	3.0	1.2	3.2	1.6	7.3
PSDB1004	10.3	10.4	4.0	7.7	3.0	1.2	3.2	1.6	7.3
PSDB1005	10.3	10.4	5.0	7.7	3.0	1.2	3.2	1.6	7.3

Inductance and rated current ranges

- PSDB5D28 1.0~100μH 2.90~0.40A
- PSDB1003 0.56~1000μH 6.20~0.23A
- PSDB1004 0.56~1000μH 10.0~0.32A
- PSDB1005 1.5~1000μH 10.5~0.35A
- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

PSDB	5D28	N	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	5D28: 6.2×6.3×3.0 1003: 10.3×10.4×3.1 1004: 10.3×10.4×4.0 1005: 10.3×10.4×5.0	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

■ Electrical Characteristics

PSDB5D28 Type

Part No	L (μH)	Tolerance	Test Condition	DCR ($\text{m}\Omega$) max.	IDC (A) max.
PSDB5D28NT1R0	1.0	$\pm 30\%$	100KHz, 0.1V	15.0	2.90
PSDB5D28NT1R5	1.5	$\pm 30\%$	100KHz, 0.1V	16.0	2.80
PSDB5D28NT2R2	2.2	$\pm 30\%$	100KHz, 0.1V	17.0	2.70
PSDB5D28NT2R5	2.5	$\pm 30\%$	100KHz, 0.1V	17.6	2.60
PSDB5D28NT3R3	3.3	$\pm 30\%$	100KHz, 0.1V	20.3	2.30
PSDB5D28NT4R0	4.0	$\pm 30\%$	100KHz, 0.1V	27.0	2.10
PSDB5D28NT4R7	4.7	$\pm 30\%$	100KHz, 0.1V	29.0	2.00
PSDB5D28NT5R0	5.0	$\pm 30\%$	100KHz, 0.1V	31.1	1.85
PSDB5D28NT6R0	6.0	$\pm 30\%$	100KHz, 0.1V	41.9	1.70
PSDB5D28NT8R0	8.0	$\pm 30\%$	100KHz, 0.1V	49.9	1.50
PSDB5D28NT100	10	$\pm 30\%$	100KHz, 0.1V	54.0	1.30
PSDB5D28NT120	12	$\pm 30\%$	100KHz, 0.1V	71.6	1.20
PSDB5D28NT150	15	$\pm 30\%$	100KHz, 0.1V	82.4	1.10
PSDB5D28NT180	18	$\pm 30\%$	100KHz, 0.1V	101.5	1.05
PSDB5D28NT220	22	$\pm 30\%$	100KHz, 0.1V	119.0	0.95
PSDB5D28NT270	27	$\pm 30\%$	100KHz, 0.1V	146.0	0.85
PSDB5D28NT330	33	$\pm 30\%$	100KHz, 0.1V	182.5	0.76
PSDB5D28NT390	39	$\pm 30\%$	100KHz, 0.1V	209.5	0.68
PSDB5D28NT470	47	$\pm 30\%$	100KHz, 0.1V	229.5	0.60
PSDB5D28NT560	56	$\pm 30\%$	100KHz, 0.1V	305.0	0.55
PSDB5D28NT680	68	$\pm 30\%$	100KHz, 0.1V	351.0	0.48
PSDB5D28NT820	82	$\pm 30\%$	100KHz, 0.1V	418.5	0.45
PSDB5D28NT101	100	$\pm 30\%$	100KHz, 0.1V	520.0	0.40

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PSDB1003 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
PSDB1003NTR56	0.56	±30%	100KHz, 0.1V	20	6.20
PSDB1003NT1R0	1.0	±30%	100KHz, 0.1V	20	6.20
PSDB1003NT1R2	1.2	±30%	100KHz, 0.1V	20	6.20
PSDB1003NT1R3	1.3	±30%	100KHz, 0.1V	20	6.20
PSDB1003NT1R5	1.5	±30%	100KHz, 0.1V	20	6.20
PSDB1003NT1R8	1.8	±30%	100KHz, 0.1V	23	5.60
PSDB1003NT2R2	2.2	±30%	100KHz, 0.1V	23	5.60
PSDB1003NT2R5	2.5	±30%	100KHz, 0.1V	23	5.60
PSDB1003NT2R7	2.7	±30%	100KHz, 0.1V	23	5.60
PSDB1003NT3R3	3.3	±30%	100KHz, 0.1V	29	5.00
PSDB1003NT3R8	3.8	±30%	100KHz, 0.1V	29	5.00
PSDB1003NT4R0	4.0	±30%	100KHz, 0.1V	33	4.80
PSDB1003NT4R7	4.7	±30%	100KHz, 0.1V	35	4.83
PSDB1003NT5R0	5.0	±30%	100KHz, 0.1V	35	4.83
PSDB1003NT5R2	5.2	±30%	100KHz, 0.1V	43	4.83
PSDB1003NT8R2	8.2	±30%	100KHz, 0.1V	50	3.54
PSDB1003□T100	10	±20%, ±30%	100KHz, 0.1V	58	2.70
PSDB1003□T120	12	±20%, ±30%	100KHz, 0.1V	72	2.25
PSDB1003□T150	15	±20%, ±30%	100KHz, 0.1V	86	2.22
PSDB1003□T180	18	±20%, ±30%	100KHz, 0.1V	116	1.90
PSDB1003□T220	22	±20%, ±30%	100KHz, 0.1V	145	1.78
PSDB1003□T270	27	±20%, ±30%	100KHz, 0.1V	176	1.63
PSDB1003□T330	33	±20%, ±30%	100KHz, 0.1V	213	1.46
PSDB1003□T390	39	±20%, ±30%	100KHz, 0.1V	270	1.32
PSDB1003□T470	47	±20%, ±30%	100KHz, 0.1V	299	1.18
PSDB1003□T560	56	±20%, ±30%	100KHz, 0.1V	335	1.10
PSDB1003□T680	68	±20%, ±30%	100KHz, 0.1V	451	1.04
PSDB1003□T820	82	±20%, ±30%	100KHz, 0.1V	513	0.94
PSDB1003□T101	100	±20%, ±30%	100KHz, 0.1V	700	0.84
PSDB1003□T121	120	±20%, ±30%	100KHz, 0.1V	765	0.76
PSDB1003□T151	150	±20%, ±30%	100KHz, 0.1V	876	0.70
PSDB1003□T181	180	±20%, ±30%	100KHz, 0.1V	1000	0.60
PSDB1003□T221	220	±20%, ±30%	100KHz, 0.1V	1050	0.58
PSDB1003□T271	270	±20%, ±30%	100KHz, 0.1V	1500	0.56
PSDB1003□T331	330	±20%, ±30%	100KHz, 0.1V	1800	0.52
PSDB1003□T391	390	±20%, ±30%	100KHz, 0.1V	2000	0.50
PSDB1003□T471	470	±20%, ±30%	100KHz, 0.1V	2170	0.48
PSDB1003□T561	560	±20%, ±30%	100KHz, 0.1V	2750	0.35
PSDB1003□T681	680	±20%, ±30%	100KHz, 0.1V	3200	0.29
PSDB1003□T821	820	±20%, ±30%	100KHz, 0.1V	3800	0.28
PSDB1003□T102	1000	±20%, ±30%	100KHz, 0.1V	5000	0.23

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

PSDB1004 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
PSDB1004NTR56	0.56	±30%	100KHz, 0.1V	8	10.00
PSDB1004NT1R0	1.0	±30%	100KHz, 0.1V	8	10.00
PSDB1004NT1R2	1.2	±30%	100KHz, 0.1V	8	10.00
PSDB1004NT1R3	1.3	±30%	100KHz, 0.1V	8	10.00
PSDB1004NT1R5	1.5	±30%	100KHz, 0.1V	8	10.00
PSDB1004NT1R8	1.8	±30%	100KHz, 0.1V	10	9.50
PSDB1004NT2R2	2.2	±30%	100KHz, 0.1V	11	8.00
PSDB1004NT2R5	2.5	±30%	100KHz, 0.1V	12	7.50
PSDB1004NT2R7	2.7	±30%	100KHz, 0.1V	12	7.50
PSDB1004NT3R3	3.3	±30%	100KHz, 0.1V	13	6.50
PSDB1004NT3R8	3.8	±30%	100KHz, 0.1V	17	6.00
PSDB1004NT4R7	4.7	±30%	100KHz, 0.1V	21	5.70
PSDB1004NT5R0	5.0	±30%	100KHz, 0.1V	22	5.60
PSDB1004NT5R2	5.2	±30%	100KHz, 0.1V	22	5.50
PSDB1004□T5R6	5.6	±20%, ±30%	100KHz, 0.1V	25	5.20
PSDB1004□T6R8	6.8	±20%, ±30%	100KHz, 0.1V	26	4.90
PSDB1004□T7R0	7.0	±20%, ±30%	100KHz, 0.1V	27	4.80
PSDB1004□T8R2	8.2	±20%, ±30%	100KHz, 0.1V	33	4.60
PSDB1004□T100	10	±20%, ±30%	100KHz, 0.1V	35	4.40
PSDB1004□T120	12	±20%, ±30%	100KHz, 0.1V	46	3.92
PSDB1004□T150	15	±20%, ±30%	100KHz, 0.1V	50	3.60
PSDB1004□T180	18	±20%, ±30%	100KHz, 0.1V	70	3.00
PSDB1004□T220	22	±20%, ±30%	100KHz, 0.1V	73	2.90
PSDB1004□T270	27	±20%, ±30%	100KHz, 0.1V	83	2.80
PSDB1004□T330	33	±20%, ±30%	100KHz, 0.1V	93	2.30
PSDB1004□T390	39	±20%, ±30%	100KHz, 0.1V	120	2.20
PSDB1004□T470	47	±20%, ±30%	100KHz, 0.1V	128	2.10
PSDB1004□T560	56	±20%, ±30%	100KHz, 0.1V	171	1.80
PSDB1004□T680	68	±20%, ±30%	100KHz, 0.1V	213	1.50
PSDB1004□T820	82	±20%, ±30%	100KHz, 0.1V	250	1.40
PSDB1004□T101	100	±20%, ±30%	100KHz, 0.1V	304	1.35
PSDB1004□T121	120	±20%, ±30%	100KHz, 0.1V	400	1.20
PSDB1004□T151	150	±20%, ±30%	100KHz, 0.1V	506	1.15
PSDB1004□T181	180	±20%, ±30%	100KHz, 0.1V	631	1.03
PSDB1004□T221	220	±20%, ±30%	100KHz, 0.1V	756	0.92
PSDB1004□T271	270	±20%, ±30%	100KHz, 0.1V	853	0.84
PSDB1004□T331	330	±20%, ±30%	100KHz, 0.1V	1090	0.70
PSDB1004□T391	390	±20%, ±30%	100KHz, 0.1V	1450	0.62
PSDB1004□T471	470	±20%, ±30%	100KHz, 0.1V	1520	0.54
PSDB1004□T561	560	±20%, ±30%	100KHz, 0.1V	2500	0.50
PSDB1004□T681	680	±20%, ±30%	100KHz, 0.1V	2800	0.45
PSDB1004□T821	820	±20%, ±30%	100KHz, 0.1V	3000	0.40
PSDB1004□T102	1000	±20%, ±30%	100KHz, 0.1V	3250	0.32

■ Viking is capable to design according to customer special requirement

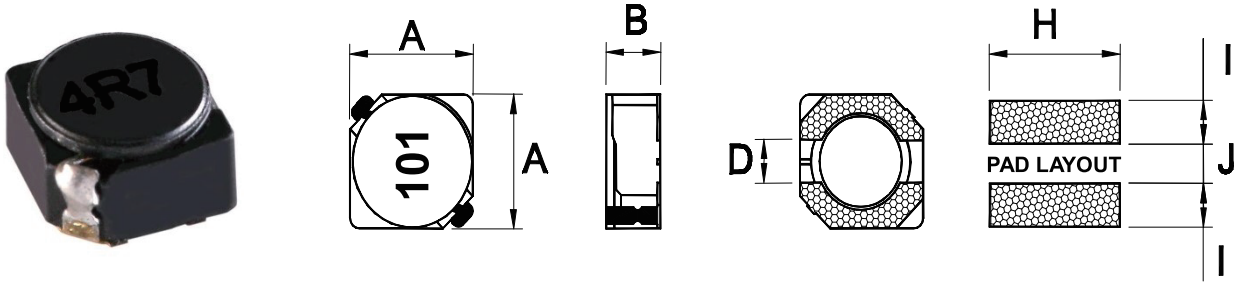
■ Electrical Characteristics

PSDB1005 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
PSDB1005NT1R5	1.5	±30%	100KHz, 0.1V	6	10.5
PSDB1005NT2R2	2.2	±30%	100KHz, 0.1V	7	9.25
PSDB1005NT3R3	3.3	±30%	100KHz, 0.1V	10	7.80
PSDB1005NT4R7	4.7	±30%	100KHz, 0.1V	12	6.40
PSDB1005NT6R8	6.8	±30%	100KHz, 0.1V	18	5.40
PSDB1005NT8R2	8.2	±30%	100KHz, 0.1V	20	4.85
PSDB1005□T100	10	±20%, ±30%	100KHz, 0.1V	26	3.45
PSDB1005□T120	12	±20%, ±30%	100KHz, 0.1V	33	3.40
PSDB1005□T150	15	±20%, ±30%	100KHz, 0.1V	41	2.83
PSDB1005□T180	18	±20%, ±30%	100KHz, 0.1V	46	2.62
PSDB1005□T220	22	±20%, ±30%	100KHz, 0.1V	61	2.44
PSDB1005□T270	27	±20%, ±30%	100KHz, 0.1V	69	2.24
PSDB1005□T330	33	±20%, ±30%	100KHz, 0.1V	84	1.88
PSDB1005□T390	39	±20%, ±30%	100KHz, 0.1V	106	1.70
PSDB1005□T470	47	±20%, ±30%	100KHz, 0.1V	130	1.56
PSDB1005□T560	56	±20%, ±30%	100KHz, 0.1V	149	1.39
PSDB1005□T680	68	±20%, ±30%	100KHz, 0.1V	201	1.36
PSDB1005□T820	82	±20%, ±30%	100KHz, 0.1V	227	1.20
PSDB1005□T101	100	±20%, ±30%	100KHz, 0.1V	253	1.09
PSDB1005MT101-1	100	±20%	100KHz, 0.1V	253	1.35
PSDB1005□T121	120	±20%, ±30%	100KHz, 0.1V	303	1.00
PSDB1005□T151	150	±20%, ±30%	100KHz, 0.1V	370	0.91
PSDB1005□T181	180	±20%, ±30%	100KHz, 0.1V	419	0.84
PSDB1005□T221	220	±20%, ±30%	100KHz, 0.1V	500	0.75
PSDB1005□T271	270	±20%, ±30%	100KHz, 0.1V	672	0.68
PSDB1005□T331	330	±20%, ±30%	100KHz, 0.1V	812	0.60
PSDB1005□T391	390	±20%, ±30%	100KHz, 0.1V	953	0.57
PSDB1005□T471	470	±20%, ±30%	100KHz, 0.1V	1289	0.50
PSDB1005□T561	560	±20%, ±30%	100KHz, 0.1V	1430	0.47
PSDB1005□T681	680	±20%, ±30%	100KHz, 0.1V	1599	0.43
PSDB1005□T821	820	±20%, ±30%	100KHz, 0.1V	1768	0.39
PSDB1005□T102	1000	±20%, ±30%	100KHz, 0.1V	1989	0.35

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Shielded SMD Power Inductor—SCDS



Features

- Directly connected electrode on ferrite core
- Available in magnetically shielded
- Low DC resistance
- Suitable for large current
- Available on tape and reel for auto surface mounting

Applications

- Power Supply For VTRs
- OA Equipment
- Notebook PCs
- Portable Communication Equipment
- DC/DC Converters, etc.

Characteristics

- Rated DC Current: The current when the inductance becomes 35% lower than its initial value (Ta=25°C)
- Operating temperature range: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Dimensions

Unit: mm

Type	A	B max.	D	H	I	J
SCDS3D18	3.8±0.3	2.0	1.1	4.6	1.65	1.0
SCDS4D18	4.7±0.3	2.0	1.5	5.3	1.90	1.5
SCDS4D28	4.7±0.3	3.0	1.5	5.3	1.90	1.5
SCDS5D18	5.7±0.3	2.0	2.0	6.3	2.15	2.0
SCDS5D28	5.7±0.3	3.0	2.0	6.3	2.15	2.0
SCDS6D28	6.7±0.3	3.0	2.0	7.3	2.65	2.0
SCDS6D38	6.7±0.3	4.0	2.0	7.3	2.65	2.0

Inductance and rated current ranges

- SCDS3D18 1.0~220μH 2.40~0.13A
 - SCDS4D18 1.0~220μH 1.72~0.13A
 - SCDS4D28 1.0~220μH 2.65~0.21A
 - SCDS5D18 2.2~470μH 2.30~0.18A
 - SCDS5D28 2.2~680μH 2.60~0.18A
 - SCDS6D28 1.0~330μH 6.15~0.35A
 - SCDS6D38 1.0~1000μH 5.60~0.18A
- Test equipment:
L: HP4284A Precision LCR meter
DCR: Milli-ohm meter

Product Identification

SCDS	5D28	N	T	101
Product Type	Dimensions (AxAxB)	Inductor Tolerance	Packaging Style	Inductance
	3D18: 3.8x3.8x2.0 4D18: 4.7x4.7x2.0 4D28: 4.7x4.7x3.0 5D18: 5.7x5.7x2.0 5D28: 5.7x5.7x3.0 6D28: 6.7x6.7x3.0 6D38: 6.7x6.7x4.0	M: ±20% N: ±30%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

Electrical Characteristics

SCDS3D18 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS3D18NT1R0	1.0	±30%	100KHz, 0.1V	0.050	2.40
SCDS3D18NT1R5	1.5	±30%	100KHz, 0.1V	0.056	1.55
SCDS3D18NT2R2	2.2	±30%	100KHz, 0.1V	0.072	1.20
SCDS3D18NT3R3	3.3	±30%	100KHz, 0.1V	0.085	1.10
SCDS3D18NT4R7	4.7	±30%	100KHz, 0.1V	0.105	0.90
SCDS3D18MT4R7-3	4.7	±20%	100KHz, 0.25V	0.146	1.10
SCDS3D18NT6R8	6.8	±30%	100KHz, 0.1V	0.170	0.73
SCDS3D18□T100	10	±20%, ±30%	100KHz, 0.1V	0.210	0.55
SCDS3D18□T120	12	±20%, ±30%	100KHz, 0.1V	0.275	0.50
SCDS3D18□T150	15	±20%, ±30%	100KHz, 0.1V	0.295	0.45
SCDS3D18□T220	22	±20%, ±30%	100KHz, 0.1V	0.430	0.40
SCDS3D18□T270	27	±20%, ±30%	100KHz, 0.1V	0.557	0.38
SCDS3D18□T330	33	±20%, ±30%	100KHz, 0.1V	0.675	0.32
SCDS3D18□T470	47	±20%, ±30%	100KHz, 0.1V	0.964	0.27
SCDS3D18□T560	56	±20%, ±30%	100KHz, 0.1V	1.330	0.22
SCDS3D18□T101	100	±20%, ±30%	100KHz, 0.1V	2.600	0.16
SCDS3D18□T221	220	±20%, ±30%	100KHz, 0.1V	4.770	0.13

Note: SCDS3D18MT4R7-3 The DC current at which the inductance becomes 30% lower than its initial value.

SCDS4D18 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS4D18NT1R0	1.0	±30%	100KHz, 0.1V	0.045	1.72
SCDS4D18NT1R2	1.2	±30%	100KHz, 0.1V	0.048	1.65
SCDS4D18NT1R5	1.5	±30%	100KHz, 0.1V	0.050	1.60
SCDS4D18NT1R8	1.8	±30%	100KHz, 0.1V	0.058	1.35
SCDS4D18NT2R0-1	2.0	±30%	100KHz, 0.25V	0.046	1.90
SCDS4D18NT2R2	2.2	±30%	100KHz, 0.1V	0.075	1.32
SCDS4D18NT2R7	2.7	±30%	100KHz, 0.1V	0.105	1.28
SCDS4D18NT3R3	3.3	±30%	100KHz, 0.1V	0.110	1.04
SCDS4D18MT3R3-2	3.3	±20%	100KHz, 0.25V	0.062	1.50
SCDS4D18NT3R9	3.9	±30%	100KHz, 0.1V	0.155	0.88
SCDS4D18NT4R7	4.7	±30%	100KHz, 0.1V	0.162	0.84
SCDS4D18NT5R6	5.6	±30%	100KHz, 0.1V	0.170	0.80
SCDS4D18NT6R8	6.8	±30%	100KHz, 0.1V	0.200	0.76
SCDS4D18NT8R2	8.2	±30%	100KHz, 0.1V	0.245	0.68
SCDS4D18□T100	10	±20%, ±30%	100KHz, 0.1V	0.200	0.61
SCDS4D18□T120	12	±20%, ±30%	100KHz, 0.1V	0.210	0.56
SCDS4D18□T150	15	±20%, ±30%	100KHz, 0.1V	0.240	0.50
SCDS4D18□T180	18	±20%, ±30%	100KHz, 0.1V	0.338	0.48
SCDS4D18□T220	22	±20%, ±30%	100KHz, 0.1V	0.397	0.41
SCDS4D18□T270	27	±20%, ±30%	100KHz, 0.1V	0.441	0.35
SCDS4D18□T330	33	±20%, ±30%	100KHz, 0.1V	0.694	0.32
SCDS4D18□T390	39	±20%, ±30%	100KHz, 0.1V	0.709	0.30
SCDS4D18□T470	47	±20%, ±30%	100KHz, 0.1V	0.922	0.28
SCDS4D18MT470-1	47	±20%	1KHz, 0.25V	0.730	0.35
SCDS4D18□T560	56	±20%, ±30%	100KHz, 0.1V	1.080	0.26
SCDS4D18□T680	68	±20%, ±30%	100KHz, 0.1V	1.300	0.24
SCDS4D18MT680-1	68	±20%	1KHz, 0.25V	0.935	0.30
SCDS4D18□T820	82	±20%, ±30%	100KHz, 0.1V	1.560	0.22
SCDS4D18□T101	100	±20%, ±30%	100KHz, 0.1V	1.730	0.20
SCDS4D18□T121	120	±20%, ±30%	100KHz, 0.1V	2.390	0.18
SCDS4D18□T151	150	±20%, ±30%	100KHz, 0.1V	2.670	0.15
SCDS4D18□T181	180	±20%, ±30%	100KHz, 0.1V	4.000	0.14
SCDS4D18□T221	220	±20%, ±30%	100KHz, 0.1V	4.300	0.13

Note: SCDS4D18NT2R0-1/SCDS4D18MT470-1 The DC current at which the inductance becomes 30% lower than its initial value.

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SCDS4D28 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS4D28NT1R0	1.0	±30%	100KHz, 0.1V	0.020	2.65
SCDS4D28NT1R2	1.2	±30%	100KHz, 0.1V	0.024	2.56
SCDS4D28NT1R8	1.8	±30%	100KHz, 0.1V	0.028	2.20
SCDS4D28NT2R2	2.2	±30%	100KHz, 0.1V	0.031	2.04
SCDS4D28NT2R7	2.7	±30%	100KHz, 0.1V	0.043	1.60
SCDS4D28NT3R3	3.3	±30%	100KHz, 0.1V	0.049	1.57
SCDS4D28MT3R3-1	3.3	±20%	100KHz, 0.25V	0.034	2.36
SCDS4D28NT3R9	3.9	±30%	100KHz, 0.1V	0.065	1.44
SCDS4D28NT4R7	4.7	±30%	100KHz, 0.1V	0.072	1.32
SCDS4D28NT5R6	5.6	±30%	100KHz, 0.1V	0.101	1.17
SCDS4D28NT6R8	6.8	±30%	100KHz, 0.1V	0.109	1.12
SCDS4D28MT6R8-1	6.8	±20%	100KHz, 0.25V	0.068	1.51
SCDS4D28NT8R2	8.2	±30%	100KHz, 0.1V	0.118	1.04
SCDS4D28□T100	10	±20%, ±30%	100KHz, 0.1V	0.128	1.00
SCDS4D28□T120	12	±20%, ±30%	100KHz, 0.1V	0.132	0.84
SCDS4D28□T150	15	±20%, ±30%	100KHz, 0.1V	0.149	0.76
SCDS4D28MT150-1	15	±20%	100KHz, 0.25V	0.142	1.05
SCDS4D28□T180	18	±20%, ±30%	100KHz, 0.1V	0.166	0.72
SCDS4D28□T220	22	±20%, ±30%	100KHz, 0.1V	0.235	0.70
SCDS4D28MT220-2	22	±20%	1KHz, 0.25V	0.208	0.86
SCDS4D28□T270	27	±20%, ±30%	100KHz, 0.1V	0.261	0.58
SCDS4D28□T330	33	±20%, ±30%	100KHz, 0.1V	0.378	0.56
SCDS4D28□T390	39	±20%, ±30%	100KHz, 0.1V	0.384	0.50
SCDS4D28□T470	47	±20%, ±30%	100KHz, 0.1V	0.587	0.48
SCDS4D28MT470-1	47	±20%	1KHz, 0.25V	0.352	0.62
SCDS4D28□T560	56	±20%, ±30%	100KHz, 0.1V	0.625	0.41
SCDS4D28□T680	68	±20%, ±30%	100KHz, 0.1V	0.699	0.35
SCDS4D28□T820	82	±20%, ±30%	100KHz, 0.1V	0.915	0.32
SCDS4D28□T101	100	±20%, ±30%	100KHz, 0.1V	1.020	0.29
SCDS4D28□T121	120	±20%, ±30%	100KHz, 0.1V	1.270	0.27
SCDS4D28□T151	150	±20%, ±30%	100KHz, 0.1V	1.360	0.24
SCDS4D28□T181	180	±20%, ±30%	100KHz, 0.1V	1.540	0.22
SCDS4D28□T221	220	±20%, ±30%	100KHz, 0.1V	2.000	0.21

Note: SCDS4D28MT3R3-1/SCDS4D28MT6R8-1 The DC current at which the inductance becomes 30% lower than its initial value.

SCDS4D28MT220-2 The DC current at which the inductance becomes 35% lower than its initial value.

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SCDS5D18 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS5D18NT2R2	2.2	±30%	10KHz, 0.1V	0.039	2.30
SCDS5D18NT2R6	2.6	±30%	10KHz, 0.1V	0.046	2.20
SCDS5D18NT3R3	3.3	±30%	10KHz, 0.1V	0.048	2.00
SCDS5D18NT4R1	4.1	±30%	10KHz, 0.1V	0.057	1.80
SCDS5D18NT4R7	4.7	±30%	10KHz, 0.1V	0.072	1.77
SCDS5D18NT5R4	5.4	±30%	10KHz, 0.1V	0.076	1.60
SCDS5D18NT6R2	6.2	±30%	10KHz, 0.1V	0.096	1.40
SCDS5D18NT6R8	6.8	±30%	10KHz, 0.1V	0.110	1.30
SCDS5D18NT8R9	8.9	±30%	10KHz, 0.1V	0.116	1.25
SCDS5D18□T100	10	±20%, ±30%	10KHz, 0.1V	0.124	1.20
SCDS5D18□T120	12	±20%, ±30%	10KHz, 0.1V	0.153	1.10
SCDS5D18□T150	15	±20%, ±30%	10KHz, 0.1V	0.196	0.97
SCDS5D18□T180	18	±20%, ±30%	10KHz, 0.1V	0.210	0.85
SCDS5D18□T220	22	±20%, ±30%	10KHz, 0.1V	0.290	0.80
SCDS5D18□T270	27	±20%, ±30%	10KHz, 0.1V	0.330	0.75
SCDS5D18□T330	33	±20%, ±30%	10KHz, 0.1V	0.386	0.65
SCDS5D18□T390	39	±20%, ±30%	10KHz, 0.1V	0.520	0.57
SCDS5D18□T470	47	±20%, ±30%	10KHz, 0.1V	0.595	0.54
SCDS5D18□T560	56	±20%, ±30%	10KHz, 0.1V	0.665	0.50
SCDS5D18□T680	68	±20%, ±30%	10KHz, 0.1V	0.840	0.43
SCDS5D18□T820	82	±20%, ±30%	10KHz, 0.1V	0.978	0.41
SCDS5D18□T101	100	±20%, ±30%	10KHz, 0.1V	1.200	0.35
SCDS5D18□T151	150	±20%, ±30%	10KHz, 0.1V	2.000	0.25
SCDS5D18□T221	220	±20%, ±30%	10KHz, 0.1V	3.280	0.20
SCDS5D18□T471	470	±20%, ±30%	10KHz, 0.1V	6.560	0.18

SCDS5D28 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS5D28NT2R2	2.2	±30%	10KHz, 0.1V	0.018	2.60
SCDS5D28NT2R6	2.6	±30%	10KHz, 0.1V	0.018	2.60
SCDS5D28NT3R0	3.0	±30%	10KHz, 0.1V	0.024	2.40
SCDS5D28NT3R3	3.3	±30%	10KHz, 0.1V	0.035	2.40
SCDS5D28NT4R2	4.2	±30%	10KHz, 0.1V	0.031	2.20
SCDS5D28NT4R7	4.7	±30%	10KHz, 0.1V	0.037	2.00
SCDS5D28NT5R3	5.3	±30%	10KHz, 0.1V	0.038	1.90
SCDS5D28NT5R6	5.6	±30%	10KHz, 0.1V	0.040	1.85
SCDS5D28NT6R2	6.2	±30%	10KHz, 0.1V	0.045	1.80
SCDS5D28NT6R8	6.8	±30%	10KHz, 0.1V	0.050	1.82
SCDS5D28NT8R2	8.2	±30%	10KHz, 0.1V	0.053	1.60
SCDS5D28□T100	10	±20%, ±30%	10KHz, 0.1V	0.065	1.30
SCDS5D28NT100-2	10	±30%	100KHz, 0.1V	0.065	1.30
SCDS5D28□T120	12	±20%, ±30%	10KHz, 0.1V	0.076	1.20
SCDS5D28□T150	15	±20%, ±30%	10KHz, 0.1V	0.103	1.10
SCDS5D28□T180	18	±20%, ±30%	10KHz, 0.1V	0.110	1.00
SCDS5D28□T220	22	±20%, ±30%	10KHz, 0.1V	0.122	0.90
SCDS5D28NT220-1	22	±30%	100KHz, 0.25V	0.122	0.90
SCDS5D28□T270	27	±20%, ±30%	10KHz, 0.1V	0.175	0.85
SCDS5D28□T330	33	±20%, ±30%	10KHz, 0.1V	0.189	0.75
SCDS5D28□T390	39	±20%, ±30%	10KHz, 0.1V	0.212	0.70
SCDS5D28□T470	47	±20%, ±30%	10KHz, 0.1V	0.260	0.62
SCDS5D28□T560	56	±20%, ±30%	10KHz, 0.1V	0.305	0.58
SCDS5D28□T680	68	±20%, ±30%	10KHz, 0.1V	0.355	0.52
SCDS5D28□T820	82	±20%, ±30%	10KHz, 0.1V	0.463	0.46
SCDS5D28□T101	100	±20%, ±30%	10KHz, 0.1V	0.520	0.42
SCDS5D28□T151	150	±20%, ±30%	10KHz, 0.1V	0.810	0.40
SCDS5D28□T181	180	±20%, ±30%	10KHz, 0.1V	1.100	0.35
SCDS5D28□T221	220	±20%, ±30%	10KHz, 0.1V	1.250	0.32
SCDS5D28□T331	330	±20%, ±30%	10KHz, 0.1V	1.650	0.28
SCDS5D28□T471	470	±20%, ±30%	10KHz, 0.1V	3.560	0.22
SCDS5D28□T561	560	±20%, ±30%	10KHz, 0.1V	4.230	0.20
SCDS5D28□T681	680	±20%, ±30%	10KHz, 0.1V	4.500	0.18

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

SCDS6D28 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS6D28NT1R0	1.0	$\pm 30\%$	10KHz, 0.1V	0.012	6.15
SCDS6D28NT2R2	2.2	$\pm 30\%$	10KHz, 0.1V	0.018	4.00
SCDS6D28NT3R0	3.0	$\pm 30\%$	10KHz, 0.1V	0.024	3.00
SCDS6D28NT3R3	3.3	$\pm 30\%$	10KHz, 0.1V	0.026	2.80
SCDS6D28NT3R9	3.9	$\pm 30\%$	10KHz, 0.1V	0.027	2.60
SCDS6D28NT4R7	4.7	$\pm 30\%$	10KHz, 0.1V	0.029	2.50
SCDS6D28NT5R0	5.0	$\pm 30\%$	10KHz, 0.1V	0.031	2.40
SCDS6D28NT5R3	5.3	$\pm 30\%$	10KHz, 0.1V	0.033	2.30
SCDS6D28NT6R0	6.0	$\pm 30\%$	10KHz, 0.1V	0.035	2.25
SCDS6D28NT6R8	6.8	$\pm 30\%$	10KHz, 0.1V	0.052	2.20
SCDS6D28NT7R3	7.3	$\pm 30\%$	10KHz, 0.1V	0.054	2.10
SCDS6D28NT8R6	8.6	$\pm 30\%$	10KHz, 0.1V	0.058	1.85
SCDS6D28□T100	10	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.065	1.70
SCDS6D28□T120	12	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.070	1.55
SCDS6D28□T150	15	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.084	1.40
SCDS6D28□T180	18	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.095	1.32
SCDS6D28□T220	22	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.128	1.20
SCDS6D28□T270	27	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.142	1.05
SCDS6D28□T330	33	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.165	0.97
SCDS6D28□T390	39	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.210	0.86
SCDS6D28□T470	47	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.238	0.80
SCDS6D28□T560	56	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.277	0.73
SCDS6D28□T680	68	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.304	0.65
SCDS6D28□T820	82	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.390	0.60
SCDS6D28□T101	100	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.535	0.54
SCDS6D28□T151	150	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	0.640	0.40
SCDS6D28□T221	220	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	1.350	0.35
SCDS6D28□T331	330	$\pm 20\%, \pm 30\%$	10KHz, 0.1V	2.000	0.35

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

SCDS6D38 Type(□:Tolerance):

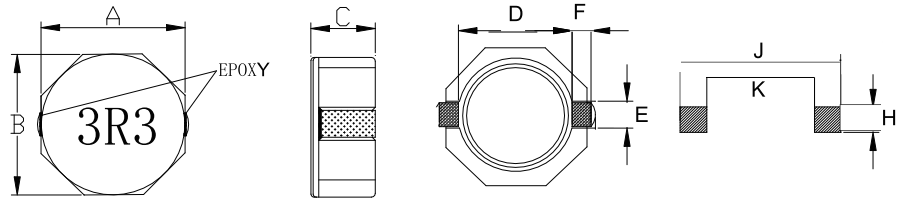
Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS6D38NT1R0	1.0	±30%	10KHz, 0.1V	0.016	5.60
SCDS6D38NT2R2	2.2	±30%	10KHz, 0.1V	0.019	4.40
SCDS6D38NT3R3	3.3	±30%	10KHz, 0.1V	0.020	3.50
SCDS6D38NT5R0	5.0	±30%	10KHz, 0.1V	0.024	2.75
SCDS6D38NT6R2	6.2	±30%	10KHz, 0.1V	0.027	2.50
SCDS6D38NT7R4	7.4	±30%	10KHz, 0.1V	0.031	2.30
SCDS6D38NT8R7	8.7	±30%	10KHz, 0.1V	0.034	2.20
SCDS6D38□T100	10	±20%, ±30%	10KHz, 0.1V	0.038	2.00
SCDS6D38□T120	12	±20%, ±30%	10KHz, 0.1V	0.053	1.70
SCDS6D38□T150	15	±20%, ±30%	10KHz, 0.1V	0.057	1.60
SCDS6D38□T180	18	±20%, ±30%	10KHz, 0.1V	0.092	1.50
SCDS6D38□T220	22	±20%, ±30%	10KHz, 0.1V	0.096	1.30
SCDS6D38□T270	27	±20%, ±30%	10KHz, 0.1V	0.109	1.20
SCDS6D38□T330	33	±20%, ±30%	10KHz, 0.1V	0.124	1.10
SCDS6D38□T390	39	±20%, ±30%	10KHz, 0.1V	0.138	1.00
SCDS6D38□T470	47	±20%, ±30%	10KHz, 0.1V	0.155	0.95
SCDS6D38□T560	56	±20%, ±30%	10KHz, 0.1V	0.202	0.85
SCDS6D38□T680	68	±20%, ±30%	10KHz, 0.1V	0.234	0.75
SCDS6D38□T820	82	±20%, ±30%	10KHz, 0.1V	0.324	0.70
SCDS6D38□T101	100	±20%, ±30%	10KHz, 0.1V	0.368	0.65
SCDS6D38MT101-2	100	±20%	1KHz, 0.25V	0.610	0.70
SCDS6D38□T151	150	±20%, ±30%	10KHz, 0.1V	0.483	0.60
SCDS6D38MT221-1	220	±20%	1KHz, 0.25V	1.170	0.40
SCDS6D38□T331	330	±20%, ±30%	10KHz, 0.1V	1.250	0.39
SCDS6D38□T561	560	±20%, ±30%	10KHz, 0.1V	2.850	0.29
SCDS6D38MT102-1	1000	±20%	1KHz, 0.25V	6.000	0.18

Note: SCDS6D38MT101-2/SCDS6D38MT102-1 The DC current at which the inductance becomes 30% lower than its initial value.

SCDS6D38MT221-1 The DC current at which the inductance becomes 35% lower than its initial value.

■ Viking is capable to design according to customer special requirement

Shielded SMD Power Inductor—SDRH



Features

- Magnetically shielded construction
- RoHS compliance

Applications

- LCD TV
- DC to DC Converters
- Notebook PC

Characteristics

- Rated DC Current : The current when the inductance becomes 35% lower than its initial value.
- Operating temperature: -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Dimensions

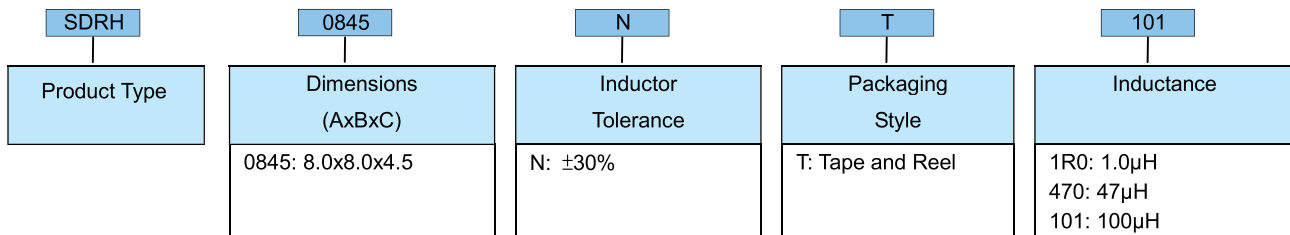
Unit: mm

Codes	A	B	C max.	D ref	E ref	F ref	H	J	K
SDRH0845	8.0±0.3	8.0±0.3	4.5	6.3	2.5	1.2	2.8	10.1	6.1

Inductance and rated current ranges

- SDRH0845 1.0~330μH 9.0~0.65A
- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification



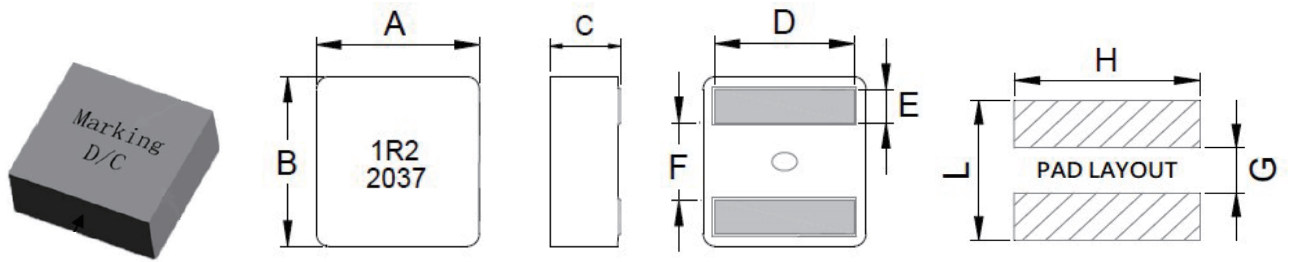
Electrical Characteristics

SDRH0845 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) max.	IDC (A) max.
SDRH0845NT1R0	1.0	±30%	100KHz, 0.1V	9.50	9.00
SDRH0845NT1R2	1.2	±30%	100KHz, 0.1V	12.2	8.00
SDRH0845NT1R5	1.5	±30%	100KHz, 0.1V	13.0	7.80
SDRH0845NT2R0	2.0	±30%	100KHz, 0.1V	14.0	7.00
SDRH0845NT2R2	2.2	±30%	100KHz, 0.1V	15.0	6.80
SDRH0845NT2R5	2.5	±30%	100KHz, 0.1V	16.0	6.60
SDRH0845NT3R3	3.3	±30%	100KHz, 0.1V	17.0	6.20
SDRH0845NT3R9	3.9	±30%	100KHz, 0.1V	19.0	5.90
SDRH0845NT4R7	4.7	±30%	100KHz, 0.1V	22.0	5.60
SDRH0845NT6R8	6.8	±30%	100KHz, 0.1V	32.0	4.40
SDRH0845NT100	10	±30%	100KHz, 0.1V	36.0	4.00
SDRH0845NT150	15	±30%	100KHz, 0.1V	53.0	2.90
SDRH0845NT180	18	±30%	100KHz, 0.1V	72.0	2.70
SDRH0845NT220	22	±30%	100KHz, 0.1V	75.0	2.60
SDRH0845NT270	27	±30%	100KHz, 0.1V	100	2.25
SDRH0845NT330	33	±30%	100KHz, 0.1V	125	2.20
SDRH0845NT470	47	±30%	100KHz, 0.1V	150	1.80
SDRH0845NT680	68	±30%	100KHz, 0.1V	240	1.50
SDRH0845NT101	100	±30%	100KHz, 0.1V	360	1.30
SDRH0845NT121	120	±30%	100KHz, 0.1V	500	1.00
SDRH0845MT331-1	330	±20%	100KHz, 0.25V	1700	0.65

■ Viking is capable to design according to customer special requirement

Shielded SMD Power Inductor – SDA Series



Dimensions

Type	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	L (mm)	G (mm)	H (mm)
SDA0420LR	4.4±0.2	4.4±0.2	1.9±0.2	3.4±0.3	0.88±0.2	1.6±0.25	3.4 ref	1.4 ref	3.8 ref
SDA0430LR	4.4±0.2	4.4±0.2	2.8±0.2	3.4±0.3	0.88±0.2	1.6±0.25	3.4 ref	1.4 ref	3.8 ref
SDA0530A	6.0±0.2	5.7±0.2	2.9±0.2	4.3±0.3	1.1±0.2	2.3±0.25	4.5 ref	2.0 ref	4.7 ref
SDA0630A	7.2±0.2	6.9±0.2	See Table	See Table	1.4±0.2	2.6±0.25	5.6 ref	2.5 ref	5.6 ref
SDA0660LR	7.2±0.2	6.9±0.2	5.8±0.2	5.3±0.3	1.4±0.2	2.6±0.25	5.6 ref	2.5 ref	5.6 ref
SDA0730A	8.4±0.3	8.0±0.3	2.9±0.2	See Table	1.75±0.2	3.15±0.25	7.4 ref	2.8 ref	7.2 ref
SDA0750A	8.4±0.3	8.0±0.3	4.8±0.2	See Table	1.75±0.2	3.15±0.25	7.4 ref	2.8 ref	7.2 ref
SDA0880A	8.9±0.3	8.5±0.3	7.7±0.3	See Table	1.8±0.2	3.5±0.3	8.0 ref	2.7 ref	7.8 ref
SDA1006A	11.9±0.3	11.0±0.3	5.7±0.3	See Table	2.4±0.2	4.5±0.3	10.5 ref	3.7 ref	11.0 ref
SDA1010A	11.9±0.3	11.0±0.3	9.7±0.3	See Table	2.4±0.2	4.4±0.3	10.5 ref	3.7 ref	11.0 ref
SDA1508A	17.5±0.3	16.5±0.3	7.7±0.3	13.2±0.5	3.2±0.2	7.0±0.3	15.0 ref	6.0 ref	15.0 ref
SDA1510A	17.5±0.3	16.5±0.3	9.7±0.3	13.2±0.5	3.2±0.2	7.0±0.3	15.0 ref	6.0 ref	15.0 ref
SDA1513A	17.5±0.3	16.5±0.3	12.7±0.3	13.2±0.5	3.2±0.2	7.0±0.3	15.0 ref	6.0 ref	15.0 ref

Features

- Low loss realized with low DCR
- High performance realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.

Applications

- Commercial applications

Characteristics

- All test data referenced to 25°C ambient.
- Current that causes the specified temperature rise from 25°C ambient.
- The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Irms Testing : Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.
- Operating temperature: -40~+125°C (Including self - temperature rise)
- Storage temperature: -10~+40°C, 50~60%RH(Product without taping); -40~+125°C (on board)
- SDA0420LR/SDA0430LR
 Sturation Current (Isat 1) will cause L0 to drop approximately 10%
 Sturation Current (Isat 2) will cause L0 to drop approximately 20%
 Sturation Current (Isat 3) will cause L0 to drop approximately 30%
 SDA0530A/SDA0630A/SDA0660LR/SDA0730A/SDA0750A/SDA0880A/SDA1006A/SDA1010A/SDA1508A/SDA1510A/SDA1513A
 Sturation Current (Isat) will cause L0 to drop approximately 30%
- SDA0420LR/SDA0430LR/SDA0660LR
 Rated operating voltage (across inductor) 15V ref.
- SDA0530A/SDA0630A/SDA0730A/SDA0750A/SDA0880A/SDA1006A/SDA1010A/SDA1508A/SDA1510A/SDA1513A
 Rated operating voltage (across inductor) 40V ref.

Inductance and rated current ranges

- SDA0420LR 0.47~2.20µH 12.5~4.8A
- SDA0430LR 1.00~3.30µH 9.0~5.3A
- SDA0530A 0.47~4.70µH 24.0~7.0A
- SDA0630A 0.33~4.50µH 28.0~8.0A
- SDA0660LR 1.00~22.0µH 16.0~5.0A
- SDA0730A 1.00~4.70µH 28.0~12.2A
- SDA0750A 2.20~5.60µH 17.0~11.0A
- SDA0880A 3.30~10.0µH 20.0~10.0A
- SDA1006A 2.20~10.0µH 36.0~13.0A
- SDA1010A 4.70~10.0µH 21.4~14.6A
- SDA1508A 2.20~22.0µH 49.0~16.0A
- SDA1510A 4.7~33.0µH 39.0~16.7A
- SDA1513A 4.7~33.0µH 40.0~16.0A
- Test equipment:
 L/Q: HP4284A, HP4395A, CH11025, CH3302, CH1320, CH1320S
 LCR Meter.
 DCR: CH16502, Agilent 33420A Micro Ohm Meter, or EQU.

Product Identification

SDA	0420	M	T	A	1R0
Product Type	Dimensions (BxC)	Inductor Tolerance	Packaging Style	Material Code	Inductance
	0420: 4.4x1.9 0430: 4.4x2.8 0530: 5.7x2.9 0630: 6.9x2.8(2.9) 0660: 6.9x5.8 0730: 8.0x2.9 0750: 8.0x4.8 0880: 8.5x7.7 1006: 11.0x5.7 1010: 11.0x9.7 1508: 16.5x7.7 1510: 16.5x9.7 1513: 16.5x12.7	M: ±20%	T: Tape and Reel	A: A Material LR: LR Material	R47: 0.47µH 1R0: 1.00µH 100: 10µH

Electrical Characteristics

SDA0420 / LR Material

Part No	Inductance (µH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)				I rms (A) Typ.	
				Typ.	Max.	Typ.			Max.	20°C rise	40°C rise
						1	2	3			
SDA0420MTLRR47	0.47	±20%	100KHz,0.1V	6.0	6.8	7.0	10.0	14.0	12.5	9.8	13.2
SDA0420MTLRR56	0.56	±20%	100KHz,0.1V	6.9	7.8	6.0	9.0	13.0	11.3	9.5	12.6
SDA0420MTLRR68	0.68	±20%	100KHz,0.1V	7.3	8.2	5.2	8.0	11.6	10.0	9.2	12.0
SDA0420MTLR1R0	1.00	±20%	100KHz,0.1V	10.6	11.7	4.5	5.4	9.2	8.0	8.0	11.0
SDA0420MTLR1R5	1.50	±20%	100KHz,0.1V	14.4	15.8	4.1	4.5	7.5	6.7	6.7	9.1
SDA0420MTLR2R2	2.20	±20%	100KHz,0.1V	21.35	23.5	3.1	3.8	6.0	4.8	6.0	8.0

SDA0430 / LR Material

Part No	Inductance (µH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)				I rms(A) Typ.	
				Typ.	Max.	Typ.			Max.	20°C rise	40°C rise
						1	2	3			
SDA0430MTLR1R0	1.00	±20%	100KHz,0.1V	9.1	10.1	5.0	6.8	9.8	9.0	8.0	11.0
SDA0430MTLR1R2	1.20	±20%	100KHz,0.1V	10.4	11.5	4.6	6.4	9.2	8.7	7.8	9.8
SDA0430MTLR1R5	1.50	±20%	100KHz,0.1V	12.0	13.2	4.1	5.6	8.0	7.0	7.0	9.0
SDA0430MTLR2R2	2.20	±20%	100KHz,0.1V	20.5	22.6	3.6	5.1	7.0	6.1	6.0	7.8
SDA0430MTLR3R3	3.30	±20%	100KHz,0.1V	26.0	28.6	3.3	4.8	6.2	5.3	5.0	6.6

SDA0660 / LR Material

Part No	Inductance (µH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.	
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise
SDA0660MTLR1R0	1.00	±20%	100KHz,0.1V	3.9	4.29	18.0	16.0	15.0	19.0
SDA0660MTLR2R2	2.20	±20%	100KHz,0.1V	7.0	7.80	14.0	12.0	11.0	14.0
SDA0660MTLR3R3	3.30	±20%	100KHz,0.1V	11.0	12.1	11.5	10.5	9.0	12.0
SDA0660MTLR4R7	4.70	±20%	100KHz,0.1V	13.1	14.4	10.5	9.5	8.0	11.0
SDA0660MTLR8R2	8.20	±20%	100KHz,0.1V	22.5	24.8	8.5	8.0	6.0	8.0
SDA0660MTLR100	10.0	±20%	100KHz,0.1V	26.6	29.3	7.6	6.8	5.0	7.0
SDA0660MTLR150	15.0	±20%	100KHz,0.1V	39.0	43.0	5.8	5.2	4.5	6.0
SDA0660MTLR220	22.0	±20%	100KHz,0.1V	55.0	60.5	5.6	5.0	3.8	5.0

Electrical Characteristics

SDA0530 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.	
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise
SDA0530MTAR47	0.47	±20%	100KHz,0.1V	3.75	4.13	26.0	24.0	13.7	18.4
SDA0530MTAR56	0.56	±20%	100KHz,0.1V	4.05	4.52	22.2	20.2	13.6	17.7
SDA0530MTAR82	0.82	±20%	100KHz,0.1V	5.25	5.78	19.7	17.6	9.90	12.9
SDA0530MTA1R0	1.00	±20%	100KHz,0.1V	6.90	7.60	16.5	14.3	9.00	12.2
SDA0530MTA1R5	1.50	±20%	100KHz,0.1V	10.1	11.2	14.0	12.5	8.00	10.5
SDA0530MTA2R2	2.20	±20%	100KHz,0.1V	13.2	14.5	10.0	9.0	7.20	9.70
SDA0530MTA3R3	3.30	±20%	100KHz,0.1V	21.0	23.1	9.5	8.7	5.90	8.10
SDA0530MTA4R7	4.70	±20%	100KHz,0.1V	33.0	36.3	8.2	7.0	4.30	5.90

SDA0630 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		C (mm)	D (mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise		
SDA0630MTAR33	0.33	±20%	100KHz,0.1V	2.25	2.50	32.0	28.0	20.0	25.0	2.8±0.2	5.55±0.3
SDA0630MTAR68	0.68	±20%	100KHz,0.1V	4.7	5.17	25.0	21.0	15.0	20.0	2.8±0.2	5.30±0.3
SDA0630MTA1R0	1.00	±20%	100KHz,0.1V	5.50	6.05	23.0	18.0	13.0	18.0	2.8±0.2	5.20±0.3
SDA0630MTA1R5	1.50	±20%	100KHz,0.1V	8.30	9.13	20.0	15.5	11.0	15.0	2.9±0.2	5.15±0.3
SDA0630MTA2R2	2.20	±20%	100KHz,0.1V	11.0	12.2	15.9	11.0	7.00	10.0	2.9±0.2	5.05±0.3
SDA0630MTA3R3	3.30	±20%	100KHz,0.1V	18.8	20.8	12.2	9.00	6.00	8.00	2.9±0.2	5.00±0.3
SDA0630MTA4R5	4.50	±20%	100KHz,0.1V	23.0	25.3	10.0	8.00	5.00	7.00	2.9±0.2	5.00±0.3

SDA0730 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		D (mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise	
SDA0730MTA1R0	1.00	±20%	100KHz,0.1V	4.55	5.00	30.0	28.0	16.1	21.8	6.6±0.3
SDA0730MTA1R5	1.50	±20%	100KHz,0.1V	7.50	8.25	25.0	23.5	12.0	15.3	6.6±0.3
SDA0730MTA2R2	2.20	±20%	100KHz,0.1V	12.4	13.7	19.0	17.0	10.0	13.0	6.2±0.3
SDA0730MTA3R3	3.30	±20%	100KHz,0.1V	16.3	18.0	15.0	13.0	8.00	10.0	6.2±0.3
SDA0730MTA4R7	4.70	±20%	100KHz,0.1V	24.2	26.7	13.5	12.2	6.90	9.00	6.2±0.3

SDA0750 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		D (mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise	
SDA0750MTA2R2	2.20	±20%	100KHz,0.1V	5.8	6.4	21.0	17.0	11.0	14.0	6.2±0.3
SDA0750MTA3R3	3.30	±20%	100KHz,0.1V	10.4	11.44	17.0	14.0	10.0	13.0	6.2±0.3
SDA0750MTA4R7	4.70	±20%	100KHz,0.1V	14.0	15.4	15.0	13.0	8.5	11.0	6.2±0.3
SDA0750MTA5R6	5.60	±20%	100KHz,0.1V	15.6	17.2	13.0	11.0	7.0	10.0	6.2±0.3

SDA0880 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		D (mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise	
SDA0880MTA3R3	3.30	±20%	100KHz,0.1V	6.6	7.3	23.0	20.0	13.5	18.0	6.9±0.4
SDA0880MTA4R7	4.70	±20%	100KHz,0.1V	8.9	9.8	19.0	17.0	10.5	14.6	6.9±0.4
SDA0880MTA6R8	6.80	±20%	100KHz,0.1V	13.0	14.3	14.5	12.5	8.0	11.3	6.9±0.4
SDA0880MTA100	10.0	±20%	100KHz,0.1V	20.8	22.9	11.0	10.0	6.6	8.7	6.9±0.4

SDA1006 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		D (mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise	
SDA1006MTA2R2	2.20	±20%	100KHz,0.1V	4.40	4.84	35.0	30.0	14.0	20.0	9.0±0.5
SDA1006MTA3R3	3.30	±20%	100KHz,0.1V	7.00	7.70	28.0	25.0	11.4	16.8	9.0±0.5
SDA1006MTA4R7	4.70	±20%	100KHz,0.1V	9.70	10.72	25.0	22.0	8.7	14.0	9.0±0.5
SDA1006MTA5R6	5.60	±20%	100KHz,0.1V	10.8	11.9	20.0	17.0	7.0	12.0	8.8±0.5
SDA1006MTA6R8	6.80	±20%	100KHz,0.1V	11.8	13.0	18.0	15.5	6.0	10.5	8.8±0.5
SDA1006MTA8R2	8.20	±20%	100KHz,0.1V	15.0	16.5	16.5	14.0	5.0	9.5	8.8±0.5
SDA1006MTA100	10.0	±20%	100KHz,0.1V	16.5	18.2	15.0	13.0	4.5	9.0	8.8±0.5

Electrical Characteristics

SDA1010 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.		D(mm)
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise	
SDA1010MTA4R7	4.70	±20%	100KHz,0.1V	5.2	5.7	25.4	21.4	17.5	24.0	9.3±0.5
SDA1010MTA5R6	5.60	±20%	100KHz,0.1V	6.5	7.2	23.6	19.6	15.7	21.2	9.3±0.5
SDA1010MTA6R8	6.80	±20%	100KHz,0.1V	8.1	8.9	21.8	18.5	14.0	18.5	9.0±0.5
SDA1010MTA8R2	8.20	±20%	100KHz,0.1V	10.8	12.4	18.3	16.3	12.9	17.1	9.0±0.5
SDA1010MTA100	10.0	±20%	100KHz,0.1V	12.5	13.75	17.5	14.6	11.5	15.5	9.0±0.5

SDA1508 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.	
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise
SDA1508MTA2R2	2.20	±20%	100KHz,0.1V	2.15	2.48	55.0	49.0	28.0	37.0
SDA1508MTA3R0	3.00	±20%	100KHz,0.1V	2.50	3.00	46.0	41.0	26.0	34.5
SDA1508MTA4R7	4.70	±20%	100KHz,0.1V	4.30	5.16	37.0	32.0	20.0	26.5
SDA1508MTA5R3	5.30	±20%	100KHz,0.1V	4.45	5.34	35.0	31.0	19.5	26.0
SDA1508MTA6R2	6.20	±20%	100KHz,0.1V	5.40	6.50	34.0	31.0	17.0	23.0
SDA1508MTA8R2	8.20	±20%	100KHz,0.1V	6.60	7.92	28.0	25.0	13.0	19.0
SDA1508MTA100	10.0	±20%	100KHz,0.1V	8.00	9.60	24.0	21.0	11.0	16.0
SDA1508MTA150	15.0	±20%	100KHz,0.1V	12.50	15.00	21.0	18.0	10.0	13.0
SDA1508MTA220	22.0	±20%	100KHz,0.1V	19.30	23.20	19.0	16.0	9.0	12.0

SDA1510 / A Material

Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.	
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise
SDA1510MTA4R7	4.7	±20%	100KHz,0.1V	3.40	3.80	43.0	39.0	22.0	30.0
SDA1510MTA5R6	5.6	±20%	100KHz,0.1V	3.82	4.20	38.0	34.0	21.0	28.0
SDA1510MTA6R8	6.8	±20%	100KHz,0.1V	4.18	4.60	36.0	31.0	20.0	26.0
SDA1510MTA8R2	8.2	±20%	100KHz,0.1V	6.00	7.20	32.0	28.0	19.0	25.0
SDA1510MTA100	10.0	±20%	100KHz,0.1V	7.10	8.60	29.0	26.0	18.0	24.0
SDA1510MTA150	15.0	±20%	100KHz,0.1V	9.20	11.50	23.0	20.0	14.0	18.0
SDA1510MTA220	22.0	±20%	100KHz,0.1V	13.2	15.8	20.0	18.0	11.0	16.0
SDA1510MTA330	33.0	±20%	100KHz,0.1V	18.7	20.0	18.7	16.7	9.0	13.0

SDA1513 / A Material

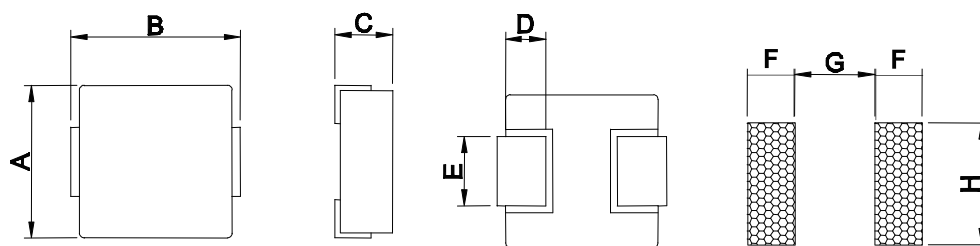
Part No	Inductance (μH)	Tolerance	Test Condition	DCR(mΩ)		I sat (A)		I rms(A) Typ.	
				Typ.	Max.	Typ.	Max.	20°C rise	40°C rise
SDA1513MTA4R7	4.70	±20%	100KHz,0.1V	3.0	3.3	44.0	40.0	23.0	31.0
SDA1513MTA5R6	5.60	±20%	100KHz,0.1V	3.5	3.9	40.0	35.0	22.0	29.0
SDA1513MTA6R8	6.80	±20%	100KHz,0.1V	3.8	4.2	37.0	32.0	21.0	27.0
SDA1513MTA8R2	8.20	±20%	100KHz,0.1V	5.1	5.74	33.0	29.0	20.0	26.0
SDA1513MTA100	10.0	±20%	100KHz,0.1V	6.3	7.0	30.0	27.0	19.0	25.0
SDA1513MTA150	15.0	±20%	100KHz,0.1V	6.8	7.5	25.5	21.0	16.0	22.0
SDA1513MTA220	22.0	±20%	100KHz,0.1V	12.6	13.86	22.0	19.0	12.0	17.0
SDA1513MTA330	33.0	±20%	100KHz,0.1V	18.5	22.2	19.0	16.0	9.0	14.0

Environmental Characteristics

Item	Test Method	Test Method															
Lift Test		Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) Temperature : 125±2°C(Inductor, ambient + temp rise) Applied current: rated current Duration : 1000±12hrs Measured at room temperature after placing for 24±2 hrs.															
Load Humidity		Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) Humidity : 85±2%R.H, Temperature : 85±2°C Duration : 1000hrs Min. Bead: with 100% rated current. Inductance : with 100% rated current Measured at room temperature after placing for 24±2 hrs.															
Moisture Resistance		Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) 1.Baked at 50°C for 25hrs, measured at room temperature after placing for 4 hrs. 2.Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs. 3.Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs,keep at 25°C for 2hrs then keep at -10°C for 3hrs 4.Keep at 25°C 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measure at room temperature after placing for 1~2 hrs.															
Thermal shock	Appearance : No damage. Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) Condition for 1 cycle Step1 : -40±2°C 30±5min , Step2 : 125±2°C ≤0.5min Step3 : 125±2°C 30±5min : Number of cycles : 50 Measured at room temperature after placing for 24±2 hrs															
Vibration		Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) Oscillation Frequency: 10Hz~2KHz~10Hz for 20 minute Equipment : Vibration checker Total Amplitude:10g Testing Time : 12 hours(20 minutes, 12 cycles each of 3 orientations)															
Bending		Shall be mounted on a FR4 substrate of the following dimensions:≥ 0805 inch(2012mm):40x100x1.2mm <0805 inch(2012mm):40x100x0.8mm Bending depth: ≥ 0805 inch(2012mm):1.2mm <0805 inch(2012mm):0.8mm ; duration of 10 sec.															
Shock		<table border="1"> <thead> <tr> <th>Type</th> <th>Peak value (g's)</th> <th>Normal duration (D) (ms)</th> <th>Wave form</th> <th>Velocity change (Vi)ft/sec</th> </tr> </thead> <tbody> <tr> <td>SDM</td> <td>50</td> <td>11</td> <td>Half-sine</td> <td>11.3</td> </tr> <tr> <td>Lead</td> <td>50</td> <td>11</td> <td>Half-sine</td> <td>11.3</td> </tr> </tbody> </table>	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)ft/sec	SDM	50	11	Half-sine	11.3	Lead	50	11	Half-sine	11.3
Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)ft/sec													
SDM	50	11	Half-sine	11.3													
Lead	50	11	Half-sine	11.3													
Resistance to soldering Heat		Depth: completely cover the termination <table border="1"> <thead> <tr> <th>Temperature(°C)</th> <th>Time(s)</th> <th>Temperature ramp/immersion and emersion rate</th> <th>Number of heat cycles</th> </tr> </thead> <tbody> <tr> <td>260±5 (solder temp)</td> <td>10±1</td> <td>25mm/s ± 6mm/s</td> <td>1</td> </tr> </tbody> </table>	Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles	260±5 (solder temp)	10±1	25mm/s ± 6mm/s	1							
Temperature(°C)	Time(s)	Temperature ramp/immersion and emersion rate	Number of heat cycles														
260±5 (solder temp)	10±1	25mm/s ± 6mm/s	1														
Solderability	More than 95% of the terminal electrode should be covered with solder	a. Method B1, 4 hrs @155°C dry heat @235°C±5°C Test time:5 +0/-0.5 seconds. b. Method D category 3. (steam aging 8 hours ± 15 min)@260°C±5°C Test time: 30 +0/-0.5 seconds.															
Terminal Strength	Appearance : No damage. Inductance : within±10% of initial value Q : Shall not exceed the specification value. RDC : within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 3 times. (IPC/JEDEC J-STD-020E Classification Reflow Profiles) With the component mounted on a PCB with the device to be tested, apply a force(>0805inch(2012mm):1kg, <=0805inch(2012mm): 0.5kg) to the side of a device being tested. This force shall be applied for 60 + 1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested. 															

Note : When there are questions concerning measurement result : measurement shall be made after 48 ± 2 hours of recovery under the standard condition

Shielded Molding SMD Power Inductor – SDB Series



Features

- Large current adaptable
- Footprint compatible with most standard
- Lower temperature rise at large current
- Low profile, low DCR
- Available on tape and reel for auto surface mounting

Applications

- Laptop / Desktop / Notebook Computers
- Terminals / Portable Servers / Workstation
- DC/DC Converter in Distributed Power Systems or VRM Applications
- Thin Type On-board Power Supply Module for Exchanger

Characteristics

- Saturation Rated Current would cause inductance to drop approximately 25%(0420 drop approximately 30%)
- Temperature Rise Current would cause an approximately ΔT of 40°C
- All test data is referred to 25°C ambient
- Operating temperature rang: -55°C ~ +125°C
- Storage Temperature: <40°C;
Humidity 25~ 80%RH

Dimensions

Unit: mm

Type	A	B	C max.	D	E	F	G	H
SDB0420	4.1±0.5	4.5±0.5	2.1	0.8±0.5	2.0±0.5	1.5	2.5	2.2
SDB0520	5.0±0.5	5.5±0.5	2.0	1.2±0.5	2.0±0.5	2.0	3.0	2.5
SDB0530	5.0±0.5	5.5±0.5	3.0	1.2±0.5	2.0±0.5	2.0	3.0	2.5
SDB0620	6.8 max	7.6 max	2.0	1.6±0.5	2.9±0.5	2.5	3.7	3.5
SDB0625	6.8 max	7.6 max	2.5	1.6±0.5	2.9±0.5	2.5	3.7	3.5
SDB0630	6.8 max	7.6 max	3.0	1.6±0.5	2.9±0.5	2.5	3.7	3.5
SDB0650	6.8 max	7.6 max	5.0	1.6±0.5	2.9±0.5	2.5	3.7	3.5
SDB1040	10.4 max	11.5 max	4.0	2.2±0.5	2.9±0.5	3.5	6.0	4.0
SDB1340	13.0 max	14.2 max	4.0	2.3±0.5	3.6±0.5	2.9	7.9	5.0
SDB1350	13.0 max	14.2 max	5.0	2.3±0.5	3.6±0.5	2.9	7.9	5.0
SDB1365	13.0 max	14.2 max	6.5	2.3±0.5	3.6±0.5	2.9	7.9	5.0

Inductance and rated current ranges

- SDB0420 0.10μH ~ 3.3μH @Saturation Current: 22~4A
- SDB0520 0.10μH ~ 4.7μH @Saturation Current: 45~5A
- SDB0530 0.10μH ~ 4.7μH @Saturation Current: 27~8.2A
- SDB0620 0.10μH ~ 4.7μH @Saturation Current: 40~8A
- SDB0625 0.10μH ~ 10μH @Saturation Current: 50~7A
- SDB0630 0.10μH ~ 22μH @Saturation Current: 60~3.5A
- SDB0650 0.56μH ~ 10μH @Saturation Current: 12~4.5A
- SDB1040 0.19μH ~ 15μH @Saturation Current: 90~8A
- SDB1340 0.10μH ~ 10μH @Saturation Current: 84~14A
- SDB1350 0.10μH ~ 10μH @Saturation Current: 118~16A
- SDB1365 0.10μH ~ 22μH @Saturation Current: 120~10A

– Test equipment:

L: HP4284A LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

Product Identification

SDB	0630	M	T	100
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0420: 4.1×2.1 0520: 4.7×2.0 0530: 4.7×3.0 0620: 6.8×2.0 0625: 6.8×2.5 0630: 6.8×3.0 0650: 6.8×5.0 1040: 10.4×4.0 1340: 13.0×4.0 1350: 13.0×5.0 1365: 13.0×6.5	M: ±20%	T: Tape and Reel	R10: 0.10μH 1R0: 1.0μH 100: 10μH

Electrical Characteristics

SDB0420 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0420MTR10	0.10	±20%	100KHz, 0.25V	4.0	22.0	12.0
SDB0420MTR22	0.22	±20%	100KHz, 0.25V	6.6	12.5	9.0
SDB0420MTR47	0.47	±20%	100KHz, 0.25V	14	9.5	7.0
SDB0420MTR56	0.56	±20%	100KHz, 0.25V	16	8.5	6.5
SDB0420MTR68	0.68	±20%	100KHz, 0.25V	18	9.0	6.0
SDB0420MT1R0	1.0	±20%	100KHz, 0.25V	27	7.0	4.5
SDB0420MT1R5	1.5	±20%	100KHz, 0.25V	46	6.0	4.0
SDB0420MT2R2	2.2	±20%	100KHz, 0.25V	58	5.0	3.0
SDB0420MT3R3	3.3	±20%	100KHz, 0.25V	87	4.0	2.5

SDB0520 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0520MTR10	0.10	±20%	100KHz, 0.25V	3.9	45.0	17.0
SDB0520MTR22	0.22	±20%	100KHz, 0.25V	5.2	22.0	15.0
SDB0520MTR33	0.33	±20%	100KHz, 0.25V	8.2	25.0	12.0
SDB0520MTR47	0.47	±20%	100KHz, 0.25V	9.4	21.0	11.5
SDB0520MTR68	0.68	±20%	100KHz, 0.25V	12.4	15.0	10.0
SDB0520MT1R0	1.0	±20%	100KHz, 0.25V	20.0	16.0	7.0
SDB0520MT2R2	2.2	±20%	100KHz, 0.25V	50.1	9.5	4.2
SDB0520MT3R3	3.3	±20%	100KHz, 0.25V	85.5	8.5	3.3
SDB0520MT4R7	4.7	±20%	100KHz, 0.25V	116.6	5.0	2.8

SDB0530 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0530MTR10	0.10	±20%	100KHz, 0.25V	3.16	27.0	23.0
SDB0530MTR22	0.22	±20%	100KHz, 0.25V	4.52	21.0	15.5
SDB0530MTR33	0.33	±20%	100KHz, 0.25V	5.56	19.0	13.7
SDB0530MTR47	0.47	±20%	100KHz, 0.25V	7.04	16.0	12.2
SDB0530MTR68	0.68	±20%	100KHz, 0.25V	8.96	13.5	10.2
SDB0530MTR82	0.82	±20%	100KHz, 0.25V	11.9	13.0	9.3
SDB0530MT1R0	1.0	±20%	100KHz, 0.25V	13.7	12.0	9.2
SDB0530MT1R5	1.5	±20%	100KHz, 0.25V	20.7	11.0	7.2
SDB0530MT2R2	2.2	±20%	100KHz, 0.25V	29.2	10.0	5.8
SDB0530MT3R3	3.3	±20%	100KHz, 0.25V	54.7	8.5	5.0
SDB0530MT4R7	4.7	±20%	100KHz, 0.25V	77.5	8.2	3.5

Viking is capable to design according to customer special requirement

■ Electrical Characteristics

SDB0620 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0620MTR10	0.10	±20%	100KHz, 0.25V	3.5	40.00	18.00
SDB0620MTR15	0.15	±20%	100KHz, 0.25V	5.2	38.00	15.00
SDB0620MTR22	0.22	±20%	100KHz, 0.25V	5.7	26.00	14.00
SDB0620MTR33	0.33	±20%	100KHz, 0.25V	7.0	18.00	12.00
SDB0620MTR47	0.47	±20%	100KHz, 0.25V	9.3	18.00	11.00
SDB0620MTR68	0.68	±20%	100KHz, 0.25V	13.9	17.00	9.00
SDB0620MTR82	0.82	±20%	100KHz, 0.25V	15.9	17.00	8.00
SDB0620MT1R0	1.0	±20%	100KHz, 0.25V	18.3	14.00	7.00
SDB0620MT1R5	1.5	±20%	100KHz, 0.25V	34.0	13.00	4.00
SDB0620MT2R2	2.2	±20%	100KHz, 0.25V	46.0	11.50	3.75
SDB0620MT3R3	3.3	±20%	100KHz, 0.25V	60.1	10.00	3.25
SDB0620MT4R7	4.7	±20%	100KHz, 0.25V	78.0	8.00	3.00

SDB0625 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0625MTR10	0.10	±20%	100KHz, 0.25V	1.7	50.0	30.0
SDB0625MTR22	0.22	±20%	100KHz, 0.25V	3.2	34.0	21.0
SDB0625MTR33	0.33	±20%	100KHz, 0.25V	4.1	22.0	18.0
SDB0625MTR47	0.47	±20%	100KHz, 0.25V	6.5	21.0	13.5
SDB0625MTR68	0.68	±20%	100KHz, 0.25V	9.4	18.0	11.0
SDB0625MTR82	0.82	±20%	100KHz, 0.25V	11.8	17.0	10.0
SDB0625MT1R0	1.0	±20%	100KHz, 0.25V	14.2	16.0	9.0
SDB0625MT1R5	1.5	±20%	100KHz, 0.25V	21.2	15.0	7.5
SDB0625MT2R2	2.2	±20%	100KHz, 0.25V	34.0	14.0	6.5
SDB0625MT3R3	3.3	±20%	100KHz, 0.25V	51.6	13.0	5.0
SDB0625MT4R7	4.7	±20%	100KHz, 0.25V	63.0	10.0	4.5
SDB0625MT6R8	6.8	±20%	100KHz, 0.25V	95.0	9.0	3.5
SDB0625MT8R2	8.2	±20%	100KHz, 0.25V	106.0	8.0	3.0
SDB0625MT100	10	±20%	100KHz, 0.25V	129.0	7.0	2.5

SDB0630 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0630MTR10	0.10	±20%	100KHz, 0.25V	1.7	60.0	32.5
SDB0630MTR22	0.22	±20%	100KHz, 0.25V	2.8	40.0	23.0
SDB0630MTR33	0.33	±20%	100KHz, 0.25V	3.9	30.0	20.0
SDB0630MTR47	0.47	±20%	100KHz, 0.25V	4.2	26.0	17.5
SDB0630MTR56	0.56	±20%	100KHz, 0.25V	4.5	24.5	16.5
SDB0630MTR68	0.68	±20%	100KHz, 0.25V	5.5	25.0	15.5
SDB0630MTR82	0.82	±20%	100KHz, 0.25V	8.0	24.0	13.0
SDB0630MT1R0	1.0	±20%	100KHz, 0.25V	10.0	22.0	11.0
SDB0630MT1R5	1.5	±20%	100KHz, 0.25V	15.0	18.0	9.0
SDB0630MT2R2	2.2	±20%	100KHz, 0.25V	20.0	14.0	8.0
SDB0630MT3R3	3.3	±20%	100KHz, 0.25V	30.0	13.5	6.0
SDB0630MT4R7	4.7	±20%	100KHz, 0.25V	40.0	10.0	5.5
SDB0630MT6R8	6.8	±20%	100KHz, 0.25V	60.0	8.0	4.5
SDB0630MT8R2	8.2	±20%	100KHz, 0.25V	68.0	7.5	4.0
SDB0630MT100	10	±20%	100KHz, 0.25V	105.0	7.0	3.0
SDB0630MT220	22	±20%	100KHz, 0.25V	160.0	4.5	2.5
SDB0630MT220-1	22	±20%	100KHz, 1V	190.0	3.5 Typ	2.0 Typ

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Electrical Characteristics

SDB0650 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB0650MTR56	0.56	±20%	100KHz, 0.25V	3.6	12.0	20.0
SDB0650MTR68	0.68	±20%	100KHz, 0.25V	4.5	11.5	18.0
SDB0650MTR82	0.82	±20%	100KHz, 0.25V	4.9	13.0	16.5
SDB0650MT1R0	1.0	±20%	100KHz, 0.25V	6.5	15.0	13.0
SDB0650MT1R5	1.5	±20%	100KHz, 0.25V	9.0	12.0	12.0
SDB0650MT2R2	2.2	±20%	100KHz, 0.25V	13.6	10.0	10.0
SDB0650MT3R3	3.3	±20%	100KHz, 0.25V	20.9	8.0	8.0
SDB0650MT4R7	4.7	±20%	100KHz, 0.25V	30.3	7.0	6.5
SDB0650MT5R6	5.6	±20%	100KHz, 0.25V	34.4	7.0	6.0
SDB0650MT6R8	6.8	±20%	100KHz, 0.25V	44.6	5.5	5.5
SDB0650MT8R2	8.2	±20%	100KHz, 0.25V	50.7	5.0	5.0
SDB0650MT100	10	±20%	100KHz, 0.25V	71.3	4.5	4.5

SDB1040 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB1040MTR19	0.19	±20%	100KHz, 0.25V	0.95	90.0	40.0
SDB1040MTR22	0.22	±20%	100KHz, 0.25V	0.95	90.0	40.0
SDB1040MTR36	0.36	±20%	100KHz, 0.25V	1.40	60.0	31.5
SDB1040MTR47	0.47	±20%	100KHz, 0.25V	1.60	38.0	26.0
SDB1040MTR56	0.56	±20%	100KHz, 0.25V	1.80	49.0	27.5
SDB1040MTR68	0.68	±20%	100KHz, 0.25V	2.40	42.0	23.0
SDB1040MT1R0	1.0	±20%	100KHz, 0.25V	4.10	36.0	17.5
SDB1040MT1R5	1.5	±20%	100KHz, 0.25V	5.80	27.5	15.0
SDB1040MT2R2	2.2	±20%	100KHz, 0.25V	9.00	25.6	12.0
SDB1040MT3R3	3.3	±20%	100KHz, 0.25V	11.80	18.6	10.0
SDB1040MT4R7	4.7	±20%	100KHz, 0.25V	16.50	17.0	9.5
SDB1040MT5R6	5.6	±20%	100KHz, 0.25V	19.30	16.0	8.5
SDB1040MT6R8	6.8	±20%	100KHz, 0.25V	23.30	13.5	8.0
SDB1040MT100	10	±20%	100KHz, 0.25V	36.50	12.0	6.8
SDB1040MT150	15	±20%	100KHz, 0.25V	60.00	8.0	5.0

SDB1340 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB1340MTR10	0.10	±20%	100KHz, 0.25V	0.96	84.0	43.0
SDB1340MTR15	0.15	±20%	100KHz, 0.25V	1.20	75.0	41.0
SDB1340MTR22	0.22	±20%	100KHz, 0.25V	1.30	65.0	38.5
SDB1340MTR33	0.33	±20%	100KHz, 0.25V	1.50	62.0	36.5
SDB1340MTR47	0.47	±20%	100KHz, 0.25V	2.00	55.0	32.0
SDB1340MTR60	0.60	±20%	100KHz, 0.25V	2.20	51.0	29.0
SDB1340MTR68	0.68	±20%	100KHz, 0.25V	2.50	49.0	28.0
SDB1340MTR82	0.82	±20%	100KHz, 0.25V	3.00	44.0	25.0
SDB1340MT1R0	1.0	±20%	100KHz, 0.25V	3.50	40.0	24.0
SDB1340MT1R5	1.5	±20%	100KHz, 0.25V	5.50	35.0	19.0
SDB1340MT1R8	1.8	±20%	100KHz, 0.25V	7.00	30.0	16.5
SDB1340MT2R2	2.2	±20%	100KHz, 0.25V	8.00	29.0	16.0
SDB1340MT3R3	3.3	±20%	100KHz, 0.25V	12.00	27.0	12.0
SDB1340MT4R7	4.7	±20%	100KHz, 0.25V	15.00	24.0	10.0
SDB1340MT5R6	5.6	±20%	100KHz, 0.25V	19.00	19.0	9.5
SDB1340MT6R8	6.8	±20%	100KHz, 0.25V	22.00	18.0	9.0
SDB1340MT8R2	8.2	±20%	100KHz, 0.25V	28.00	16.0	8.5
SDB1340MT100	10	±20%	100KHz, 0.25V	34.00	14.0	7.0

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Electrical Characteristics

SDB1350 Type

Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB1350MTR10	0.10	±20%	100KHz, 0.25V	0.6	118.0	55.0
SDB1350MTR22	0.22	±20%	100KHz, 0.25V	0.8	110.0	51.0
SDB1350MTR33	0.33	±20%	100KHz, 0.25V	1.1	80.0	42.0
SDB1350MTR47	0.47	±20%	100KHz, 0.25V	1.3	65.0	38.0
SDB1350MTR56	0.56	±20%	100KHz, 0.25V	1.5	55.0	36.0
SDB1350MTR68	0.68	±20%	100KHz, 0.25V	1.7	54.0	34.0
SDB1350MTR82	0.82	±20%	100KHz, 0.25V	2.3	53.0	31.0
SDB1350MT1R0	1.0	±20%	100KHz, 0.25V	2.5	50.0	29.0
SDB1350MT1R5	1.5	±20%	100KHz, 0.25V	4.1	48.0	23.0
SDB1350MT1R8	1.8	±20%	100KHz, 0.25V	4.9	40.0	19.0
SDB1350MT2R2	2.2	±20%	100KHz, 0.25V	5.5	32.0	20.0
SDB1350MT3R3	3.3	±20%	100KHz, 0.25V	9.2	32.0	15.0
SDB1350MT4R7	4.7	±20%	100KHz, 0.25V	15.0	27.0	12.0
SDB1350MT5R6	5.6	±20%	100KHz, 0.25V	16.5	22.0	11.5
SDB1350MT6R8	6.8	±20%	100KHz, 0.25V	18.5	21.0	11.0
SDB1350MT7R8	7.8	±20%	100KHz, 0.25V	20.5	18.0	10.0
SDB1350MT8R2	8.2	±20%	100KHz, 0.25V	22.5	18.0	9.5
SDB1350MT100	10	±20%	100KHz, 0.25V	25.5	16.0	9.0

SDB1365 Type

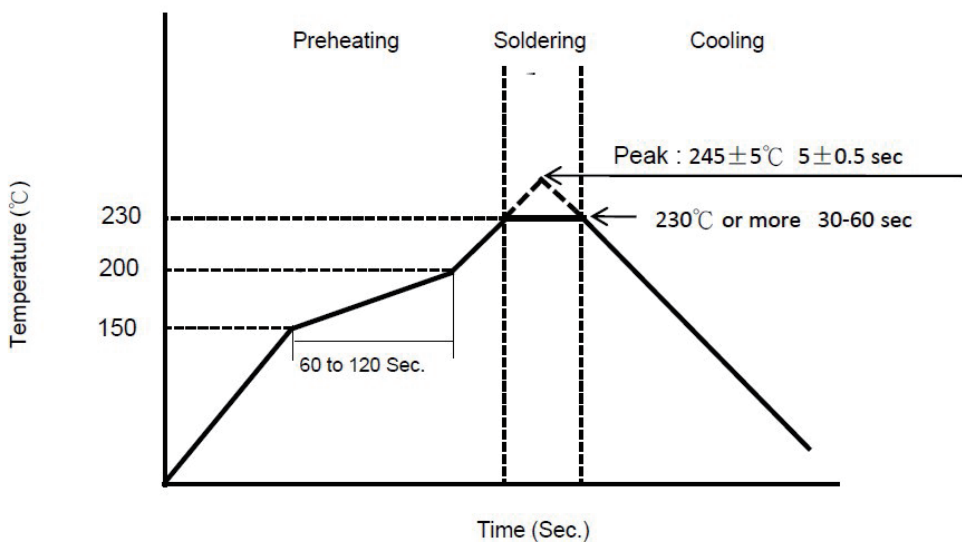
Part No	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Max.	Temperature Rise Current (A) Max.
SDB1365MTR10	0.10	±20%	100KHz, 0.25V	0.5	120.0	60.0
SDB1365MTR15	0.15	±20%	100KHz, 0.25V	0.6	118.0	55.0
SDB1365MTR22	0.22	±20%	100KHz, 0.25V	0.7	112.0	53.0
SDB1365MTR30	0.30	±20%	100KHz, 0.25V	0.8	72.0	48.0
SDB1365MTR33	0.33	±20%	100KHz, 0.25V	0.9	65.0	46.0
SDB1365MTR40	0.40	±20%	100KHz, 0.25V	1.0	64.0	44.0
SDB1365MTR47	0.47	±20%	100KHz, 0.25V	1.2	63.0	41.0
SDB1365MTR56	0.56	±20%	100KHz, 0.25V	1.4	62.0	37.0
SDB1365MTR68	0.68	±20%	100KHz, 0.25V	1.6	60.0	35.0
SDB1365MTR82	0.82	±20%	100KHz, 0.25V	1.9	50.0	33.0
SDB1365MT1R0	1.0	±20%	100KHz, 0.25V	2.0	49.0	32.0
SDB1365MT1R0-1	1.0	±20%	100KHz, 1V	2.0	49.0	32.0
SDB1365MT1R2	1.2	±20%	100KHz, 0.25V	2.5	48.0	30.0
SDB1365MT1R5	1.5	±20%	100KHz, 0.25V	3.0	45.0	27.0
SDB1365MT1R8	1.8	±20%	100KHz, 0.25V	3.2	41.0	24.0
SDB1365MT2R2	2.2	±20%	100KHz, 0.25V	4.2	40.0	22.0
SDB1365MT3R3	3.3	±20%	100KHz, 0.25V	6.8	35.0	18.0
SDB1365MT4R7	4.7	±20%	100KHz, 0.25V	8.7	32.0	13.5
SDB1365MT5R6	5.6	±20%	100KHz, 0.25V	10.0	32.0	13.5
SDB1365MT6R8	6.8	±20%	100KHz, 0.25V	14.0	16.5	11.5
SDB1365MT8R2	8.2	±20%	100KHz, 0.25V	15.5	16.0	10.5
SDB1365MT100	10	±20%	100KHz, 0.25V	17.2	15.5	10.0
SDB1365MT100-1	10	±20%	100KHz, 1V	17.2	15.5	10.0
SDB1365MT220	22	±20%	100KHz, 0.25V	40.0	10.0	10.0

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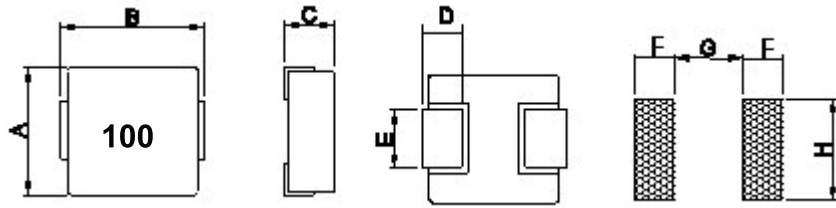
General Characteristics

Item	Requirement	Test Method															
Solderability	More than 90% of the terminal electrode should be covered with solder	230±5°C for 4±1 seconds															
Solder Heat Resistance	Inductance within±20% of initial value No disconnection or short circuit The appearance shall not break	260±5°C for 10±1 seconds															
Heat Resistance		Temperature: 125±5°C Time: 500 hours Tested after 2 hour at room temperature															
Cold Resistance		Temperature: -40±5°C Time: 500 hours Tested after 2 hour at room temperature															
Thermal Shock		One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±5°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>3</td> </tr> <tr> <td>3</td> <td>125±5°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>3</td> </tr> </tbody> </table>	Step	Temperature(°C)	Time (min.)	1	-40±5°C	30	2	Room temperature	3	3	125±5°C	30	4	Room temperature	3
Step		Temperature(°C)	Time (min.)														
1	-40±5°C	30															
2	Room temperature	3															
3	125±5°C	30															
4	Room temperature	3															
Humidity Resistance	Temperature: 40±2°C, 90~95% relative humidity Time: 500 hours Tested after 2 hour at room temperature																
Vibration Test	Inductance within±5% of initial value The appearance shall not break	After vibration for 1hour, in each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P amplitudes															

The Condition of Reflow (Recommendation) :



Shielded Molding SMD Power Inductor – SDN Series



Features

- Halogen free
- Powder iron core material
- Magnetically shielded, low EMI
- High current carrying capacity, Low core losses
- Frequency range up to 5MHz
- RoHS compliant

Applications

- Voltage Regulator Module (VRM)
- Multi-phase Regulators
- Point-of-load Modules
- Smart Phone POL Modules
- SSD Modules
- Notebook Regulators
- Battery Power Systems
- Graphics Cards
- Data Networking And Storage Systems

Characteristics

- Saturation Rated Current would cause inductance to drop approximately 30%
- Temperature Rise Current would cause an approximately ΔT of 40°C
- All test data is referred to 25°C ambient
- The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Dimensions

Unit: mm

Type	A	B	C	D	E	F	G	H
SDN0412	4.2±0.25	4.4±0.35	1.0±0.2	0.8±0.3	2.0±0.3	1.5	2.2	2.5
SDN0420	4.2±0.25	4.4±0.35	1.8±0.2	0.8±0.3	2.0±0.3	1.5	2.2	2.5
SDN0518	5.2±0.20	5.4±0.30	1.6±0.2	1.2±0.2	2.2±0.3	1.9	2.2	2.5
SDN0530	5.2±0.20	5.4±0.3	2.8±0.2	1.2±0.2	2.2±0.3	1.9	2.2	2.5
SDN0618	6.6±0.20	7.0±0.3	1.6±0.2	1.6±0.3	3.0±0.3	2.35	3.7	3.5
SDN0624	6.6±0.20	7.0±0.3	2.2±0.2	2.0±0.1	3.0±0.3	2.35	3.7	3.5
SDN0630	6.6±0.20	7.0±0.3	2.8±0.2	1.6±0.3	3.0±0.3	2.35	3.7	3.5
SDN1040	10.0±0.30	11.5 Max	3.8±0.2	2.0±0.5	3.0±0.5	4.1	5.4	4.1

Inductance and rated current ranges

- SDN0412 0.47μH~4.7μH @Saturation Current: 6.8~2.8A
- SDN0420 0.22μH~10μH @Saturation Current: 12.5~2.2A
- SDN0518 0.47μH~10μH @Saturation Current: 15.5~3A
- SDN0530 0.20μH~10μH @Saturation Current: 14.5~3.5A
- SDN0618 0.68μH~22μH @Saturation Current: 17~2.3A
- SDN0624 0.33μH~10μH @Saturation Current: 24.5~4.0A
- SDN0630 0.22μH~33μH @Saturation Current: 34~2.5A
- SDN1040 0.15μH~33μH @Saturation Current: 75~5.0A

– Test equipment:

L: HP4284A LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

– Operating temperature rang: -55°C~+125°C

– Storage Temperature: 20~30°C; Humidity \leq 70%RH

Product Identification

SDN	0630	M	T	100
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0412: 4.2×1.0 0420: 4.2×1.8 0518: 5.2×1.6 0530: 5.2×2.8 0618: 6.6×1.6 0624: 6.6×2.2 0630: 6.6×2.8 1040: 10.0×3.8	M: ±20%	T: Tape and Reel	R10: 0.10μH 1R0: 1.0μH 100: 10μH

Electrical Characteristics

SDN0412 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0412MTR47	0.47	±20%	100KHz, 0.25V	21.0	6.8	6.0
SDN0412MT1R0	1.0	±20%	100KHz, 0.25V	47.0	5.5	4.5
SDN0412MT2R2	2.2	±20%	100KHz, 0.25V	83.5	3.5	2.75
SDN0412MT4R7	4.7	±20%	100KHz, 0.25V	195.0	2.8	1.8

SDN0420 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0420MTR22	0.22	±20%	100KHz, 0.25V	6.6	12.5	9.5
SDN0420MTR47	0.47	±20%	100KHz, 0.25V	14.0	9.5	7.5
SDN0420MTR68	0.68	±20%	100KHz, 0.25V	18.0	9.0	7.0
SDN0420MT1R0	1.0	±20%	100KHz, 0.25V	27.0	7.0	6.0
SDN0420MT1R5	1.5	±20%	100KHz, 0.25V	46.0	6.0	5.0
SDN0420MT2R2	2.2	±20%	100KHz, 0.25V	58.0	5.0	4.5
SDN0420MT3R3	3.3	±20%	100KHz, 0.25V	87.0	4.0	3.3
SDN0420MT4R7	4.7	±20%	100KHz, 0.25V	105.0	3.0	2.8
SDN0420MT6R8	6.8	±20%	100KHz, 0.25V	175.0	2.5	2.4
SDN0420MT100	10	±20%	100KHz, 0.25V	282.0	2.2	1.6

SDN0518 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0518MTR47	0.47	±20%	100KHz, 0.25V	9.0	15.5	10.5
SDN0518MT1R0	1.0	±20%	100KHz, 0.25V	17.0	9.0	8.0
SDN0518MT1R5	1.5	±20%	100KHz, 0.25V	26.0	9.0	7.5
SDN0518MT2R2	2.2	±20%	100KHz, 0.25V	35.0	6.5	5.0
SDN0518MT3R3	3.3	±20%	100KHz, 0.25V	58.0	5.0	4.5
SDN0518MT4R7	4.7	±20%	100KHz, 0.25V	85.0	4.0	3.5
SDN0518MT6R8	6.8	±20%	100KHz, 0.25V	120.0	3.4	2.8
SDN0518MT100	10	±20%	100KHz, 0.25V	155.0	3.0	2.5

SDN0530 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0530MTR20	0.20	±20%	100KHz, 0.25V	3.9	14.5	14.0
SDN0530MTR47	0.47	±20%	100KHz, 0.25V	8.5	12.0	11.0
SDN0530MTR68	0.68	±20%	100KHz, 0.25V	12.0	11.5	9.0
SDN0530MT1R0	1.0	±20%	100KHz, 0.25V	14.0	11.0	8.5
SDN0530MT1R5	1.5	±20%	100KHz, 0.25V	25.0	8.5	8.2
SDN0530MT2R2	2.2	±20%	100KHz, 0.25V	29.0	7.5	7.0
SDN0530MT3R3	3.3	±20%	100KHz, 0.25V	38.0	6.0	5.5
SDN0530MT4R7	4.7	±20%	100KHz, 0.25V	60.0	5.0	4.5
SDN0530MT6R8	6.8	±20%	100KHz, 0.25V	90.0	4.0	3.5
SDN0530MT100	10	±20%	100KHz, 0.25V	125.0	3.5	3.2

SDN0618 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0618MTR68	0.68	±20%	100KHz, 0.25V	12.0	17.0	9.5
SDN0618MT1R0	1.0	±20%	100KHz, 0.25V	16.0	14.0	8.5
SDN0618MT2R2	2.2	±20%	100KHz, 0.25V	35.0	8.0	7.0
SDN0618MT4R7	4.7	±20%	100KHz, 0.25V	62.0	5.0	4.0
SDN0618MT6R8	6.8	±20%	100KHz, 0.25V	110.0	4.5	3.0
SDN0618MT100	10	±20%	100KHz, 0.25V	155.0	2.5	2.3
SDN0618MT220	22	±20%	100KHz, 0.25V	350.0	2.3	1.8

Electrical Characteristics

SDN0624 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0624MTR33	0.33	±20%	100KHz, 0.25V	4.1	24.5	18.0
SDN0624MTR47	0.47	±20%	100KHz, 0.25V	5.1	22.0	15.0
SDN0624MTR56	0.56	±20%	100KHz, 0.25V	6.5	17.0	13.0
SDN0624MTR68	0.68	±20%	100KHz, 0.25V	7.0	16.0	12.0
SDN0624MT1R5	1.5	±20%	100KHz, 0.25V	20.0	15.0	9.0
SDN0624MT3R3	3.3	±20%	100KHz, 0.25V	39.0	10.0	5.5
SDN0624MT6R8	6.8	±20%	100KHz, 0.25V	70.0	6.0	4.0
SDN0624MT100	10	±20%	100KHz, 0.25V	101.0	4.0	3.1

SDN0630 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN0630MTR22	0.22	±20%	100KHz, 0.25V	3.0	34.0	24.0
SDN0630MTR33	0.33	±20%	100KHz, 0.25V	3.5	25.0	21.0
SDN0630MTR47	0.47	±20%	100KHz, 0.25V	4.1	20.0	18.0
SDN0630MTR56	0.56	±20%	100KHz, 0.25V	4.5	18.0	16.5
SDN0630MTR68	0.68	±20%	100KHz, 0.25V	5.3	17.0	16.0
SDN0630MT1R0	1.0	±20%	100KHz, 0.25V	7.4	15.0	12.0
SDN0630MT1R5	1.5	±20%	100KHz, 0.25V	12.1	14.0	12.0
SDN0630MT2R2	2.2	±20%	100KHz, 0.25V	15.0	10.0	9.5
SDN0630MT3R3	3.3	±20%	100KHz, 0.25V	22.0	9.5	8.5
SDN0630MT4R7	4.7	±20%	100KHz, 0.25V	33.0	6.5	6.0
SDN0630MT6R8	6.8	±20%	100KHz, 0.25V	48.0	6.0	5.0
SDN0630MT100	10	±20%	100KHz, 0.25V	67.0	5.5	4.5
SDN0630MT150	15	±20%	100KHz, 0.25V	115.0	4.5	3.0
SDN0630MT220	22	±20%	100KHz, 0.25V	200.0	3.0	2.3
SDN0630MT330	33	±20%	100KHz, 0.25V	310.0	2.5	2.0

SDN1040 Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ) Max.	Saturation Current (A) Typ.	Temperature Rise Current (A) Typ.
SDN1040MTR15	0.15	±20%	100KHz, 0.25V	0.65	75.0	45.0
SDN1040MTR22	0.22	±20%	100KHz, 0.25V	1.0	60.0	35.0
SDN1040MTR30	0.30	±20%	100KHz, 0.25V	1.1	50.0	35.0
SDN1040MTR36	0.36	±20%	100KHz, 0.25V	1.2	50.0	30.0
SDN1040MTR47	0.47	±20%	100KHz, 0.25V	1.7	40.0	30.0
SDN1040MTR56	0.56	±20%	100KHz, 0.25V	1.8	33.0	25.0
SDN1040MTR68	0.68	±20%	100KHz, 0.25V	2.4	30.0	23.0
SDN1040MTR80	0.80	±20%	100KHz, 0.25V	2.7	29.0	23.0
SDN1040MT1R0	1.0	±20%	100KHz, 0.25V	3.3	28.0	19.0
SDN1040MT1R5	1.5	±20%	100KHz, 0.25V	4.2	26.0	16.0
SDN1040MT2R2	2.2	±20%	100KHz, 0.25V	7.0	18.0	12.0
SDN1040MT3R3	3.3	±20%	100KHz, 0.25V	11.8	16.0	11.0
SDN1040MT4R7	4.7	±20%	100KHz, 0.25V	20.0	15.0	9.0
SDN1040MT6R8	6.8	±20%	100KHz, 0.25V	25.0	12.0	8.5
SDN1040MT8R2	8.2	±20%	100KHz, 0.25V	27.0	9.0	8.0
SDN1040MT100	10	±20%	100KHz, 0.25V	30.0	8.5	7.8
SDN1040MT150	15	±20%	100KHz, 0.25V	45.0	7.0	6.5
SDN1040MT220	22	±20%	100KHz, 0.25V	66.0	5.5	5.0
SDN1040MT330	33	±20%	100KHz, 0.25V	92.0	5.0	4.4

General Characteristics

Item	Requirement	Test Method														
Solderability	More than 95% of the terminal electrode should be covered with solder	Solder heat proof: Preheating: 160±10°C Retention time: 245±5°C for 2±0.5 seconds														
Solder Heat Resistance	Inductance within±10% of initial value No disconnection or short circuit The appearance shall not break	260±5°C for 10±1 seconds														
High Temperature Resistance		Temperature: 85±2°C Applied Current: Rated current Time: 1000+4/-0 hours														
Low Temperature Store		-55±2°C for 1000+4/-0 hours														
High Temperature Store		125±2°C for 1000+4/-0 hours														
Thermal Shock		Repeat 100 cycles as follow: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55±2°C</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>5</td> </tr> <tr> <td>3</td> <td>125±2°C</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>5</td> </tr> </tbody> </table> Recovery: 48 + 4 / -0 hours of recovery under the standard condition after the test.	Step	Temperature(°C)	Time (min.)	1	-55±2°C	30±3	2	Room temperature	5	3	125±2°C	30±3	4	Room temperature
Step	Temperature(°C)	Time (min.)														
1	-55±2°C	30±3														
2	Room temperature	5														
3	125±2°C	30±3														
4	Room temperature	5														
Humidity Resistance	Temperature: 60±2°C, 90~95% relative humidity Applied Current: Rated current Time: 1000+4/-0 hours															
Vibration Test	Inductance within±10% of initial value The appearance shall not break	Vibration frequency: (10 Hz to 55 Hz to 10Hz) in 60 seconds as a period Vibration time: Period cycled for 2 hours in each of 3 mutual perpendicular directions. Amplitude: 1.5 mm max.														
Shock		Peak value: 100 G Duration of pulse: 11ms times in each positive and negative direction of 3 mutual perpendicular directions														

SMD Power Inductor Environmental Specifications

Electrical Performance Test

Item	Requirement	Test Equipment
Inductance	Refer to standard electrical characteristic spec.	HP4284A/ HP4285A/ HP4192A LCR meter
Q		HP4284A/ HP4285A/ HP4192A LCR meter
DC Resistance RDC		Milli-ohm meter

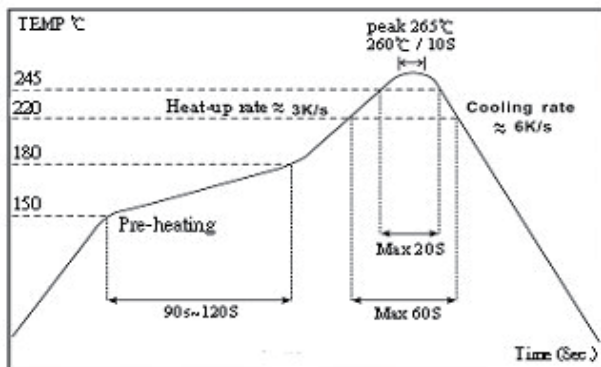
Environmental Test

Item	Requirement	Test Condition / Test Method
High Temperature Storage	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature $85 \pm 2^\circ\text{C}$ Time: 48 ± 2 hours, Tested after 1 hour at room temperature.
Low Temperature Storage		Temperature $-25 \pm 2^\circ\text{C}$ Time: 48 ± 2 hours, Tested after 1 hour at room temperature.
Humidity		Temperature $40 \pm 2^\circ\text{C}$, 90~95% relative humidity Time: 96 ± 2 hours Tested after 1 hour at room temperature.
Thermal Shock		First -25°C 30minutes then 25°C 10 minutes last 85°C , 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

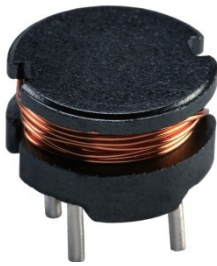
Mechanical Test

Item	Requirement	Test Condition / Test Method
Solderability	Terminal area must have 90% minimum solder coverage.	Product with Lead-free terminal: Dip pads in flux then dip in solder pot at $245 \pm 5^\circ\text{C}$ for 3 seconds.
Resistance to Soldering Heat	No case deformation	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of $130 \sim 150^\circ\text{C}$. Immersing to $260 \pm 5^\circ\text{C}$ for 10 seconds.
Vibration test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Apply frequency 10~55Hz. 1.5Mm amplitude in each of perpendicular direction for 2 hours.
Shock Resistance		Drop down with 981m/s^2 (100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

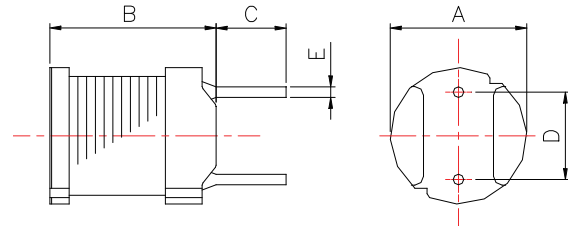
The condition of reflow (recommendation)



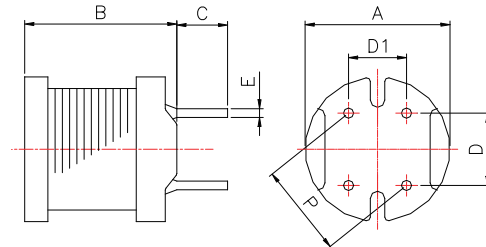
DIP Power Inductor – DRGH Series



DRGH 664 / 855 / 875 / 895



DRGH 110



Unit: mm

Dimensions

Type	A	B max.	C	D	D1	E	P
DRGH664	6.0±0.5	6.5	4.0±1.0	4.0±0.3	–	0.50±0.1	–
DRGH855	7.8±0.5	5.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH875	7.8±0.5	7.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH895	7.8±0.5	9.5	5.0±1.0	5.0±0.3	–	0.65±0.1	–
DRGH110	10.0±0.5	10.5	3.5±1.0	5.0±0.3	4.0±0.3	0.70±0.1	6.40±0.5

Features

- Density design, small size, and low cost
- Comparatively range rated current and high inductance
- Low DCR and high dip stability

Applications

- Personal Computers
- Variety of Battery Power Equipment
- DC Power Supply Circuits

Inductance and rated current ranges

- DRGH664 22~1000µH 1.27~0.19A
- DRGH855 10~10000µH 2.50~0.081A
- DRGH875 10~10000µH 2.90~0.084A
- DRGH895 10~47000µH 2.60~0.038A
- DRGH110 10~1000µH 5.30~0.53A

– Test equipment:

L: HP4284A LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

Characteristics

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Product Identification

DRGH	664	K	B	100
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	664: 6.0x6.5x4.0 855: 7.8x5.5x5.0 875: 7.8x7.5x5.0 895: 7.8x9.5x5.0 110: 10x10.5x3.5	K: ±10% M: ±20%	B: Bulk	100: 10µH 101: 100µH 102: 1000µH

■ Offer UL tube product by customer's requirement.

■ Electrical Characteristics

DRGH664 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH664MB220	22	$\pm 20\%$	1KHz, 0.1V	0.11	1.27
DRGH664MB270	27	$\pm 20\%$	1KHz, 0.1V	0.14	1.14
DRGH664MB330	33	$\pm 20\%$	1KHz, 0.1V	0.17	1.03
DRGH664MB390	39	$\pm 20\%$	1KHz, 0.1V	0.19	0.95
DRGH664MB470	47	$\pm 20\%$	1KHz, 0.1V	0.23	0.87
DRGH664MB560	56	$\pm 20\%$	1KHz, 0.1V	0.26	0.80
DRGH664MB680	68	$\pm 20\%$	1KHz, 0.1V	0.28	0.72
DRGH664MB820	82	$\pm 20\%$	1KHz, 0.1V	0.39	0.66
DRGH664KB101	100	$\pm 10\%$	1KHz, 0.1V	0.43	0.59
DRGH664KB121	120	$\pm 10\%$	1KHz, 0.1V	0.54	0.54
DRGH664KB151	150	$\pm 10\%$	1KHz, 0.1V	0.64	0.48
DRGH664KB181	180	$\pm 10\%$	1KHz, 0.1V	0.74	0.44
DRGH664KB221	220	$\pm 10\%$	1KHz, 0.1V	0.96	0.40
DRGH664KB271	270	$\pm 10\%$	1KHz, 0.1V	1.12	0.36
DRGH664KB331	330	$\pm 10\%$	1KHz, 0.1V	1.48	0.33
DRGH664KB391	390	$\pm 10\%$	1KHz, 0.1V	1.66	0.30
DRGH664KB471	470	$\pm 10\%$	1KHz, 0.1V	1.91	0.27
DRGH664KB561	560	$\pm 10\%$	1KHz, 0.1V	2.31	0.25
DRGH664KB681	680	$\pm 10\%$	1KHz, 0.1V	2.67	0.23
DRGH664KB821	820	$\pm 10\%$	1KHz, 0.1V	3.10	0.21
DRGH664KB102	1000	$\pm 10\%$	1KHz, 0.1V	4.45	0.19

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

DRGH855 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH855MB100	10	$\pm 20\%$	1KHz, 0.1V	0.07	2.50
DRGH855MB120	12	$\pm 20\%$	1KHz, 0.1V	0.08	2.40
DRGH855MB150	15	$\pm 20\%$	1KHz, 0.1V	0.09	2.10
DRGH855MB180	18	$\pm 20\%$	1KHz, 0.1V	0.10	2.00
DRGH855MB220	22	$\pm 20\%$	1KHz, 0.1V	0.12	1.70
DRGH855MB270	27	$\pm 20\%$	1KHz, 0.1V	0.14	1.60
DRGH855MB330	33	$\pm 20\%$	1KHz, 0.1V	0.17	1.40
DRGH855MB390	39	$\pm 20\%$	1KHz, 0.1V	0.21	1.30
DRGH855MB470	47	$\pm 20\%$	1KHz, 0.1V	0.24	1.20
DRGH855MB560	56	$\pm 20\%$	1KHz, 0.1V	0.31	1.10
DRGH855MB680	68	$\pm 20\%$	1KHz, 0.1V	0.34	1.00
DRGH855MB820	82	$\pm 20\%$	1KHz, 0.1V	0.40	0.93
DRGH855KB101	100	$\pm 10\%$	1KHz, 0.1V	0.52	0.81
DRGH855KB121	120	$\pm 10\%$	1KHz, 0.1V	0.59	0.76
DRGH855KB151	150	$\pm 10\%$	1KHz, 0.1V	0.71	0.67
DRGH855KB181	180	$\pm 10\%$	1KHz, 0.1V	0.89	0.62
DRGH855KB221	220	$\pm 10\%$	1KHz, 0.1V	1.04	0.54
DRGH855KB271	270	$\pm 10\%$	1KHz, 0.1V	1.28	0.49
DRGH855KB331	330	$\pm 10\%$	1KHz, 0.1V	1.47	0.44
DRGH855KB391	390	$\pm 10\%$	1KHz, 0.1V	1.67	0.41
DRGH855KB471	470	$\pm 10\%$	1KHz, 0.1V	1.95	0.38
DRGH855KB561	560	$\pm 10\%$	1KHz, 0.1V	2.83	0.35
DRGH855KB681	680	$\pm 10\%$	1KHz, 0.1V	3.25	0.32
DRGH855KB821	820	$\pm 10\%$	1KHz, 0.1V	3.82	0.31
DRGH855KB102	1000	$\pm 10\%$	1KHz, 0.1V	5.28	0.25
DRGH855KB122	1200	$\pm 10\%$	1KHz, 0.1V	6.03	0.23
DRGH855KB152	1500	$\pm 10\%$	1KHz, 0.1V	7.15	0.21
DRGH855KB182	1800	$\pm 10\%$	1KHz, 0.1V	8.26	0.20
DRGH855KB222	2200	$\pm 10\%$	1KHz, 0.1V	11.1	0.18
DRGH855KB272	2700	$\pm 10\%$	1KHz, 0.1V	13.1	0.16
DRGH855KB332	3300	$\pm 10\%$	1KHz, 0.1V	15.9	0.14
DRGH855KB392	3900	$\pm 10\%$	1KHz, 0.1V	18.0	0.13
DRGH855KB472	4700	$\pm 10\%$	1KHz, 0.1V	23.9	0.12
DRGH855KB562	5600	$\pm 10\%$	1KHz, 0.1V	26.8	0.11
DRGH855KB682	6800	$\pm 10\%$	1KHz, 0.1V	31.7	0.098
DRGH855KB822	8200	$\pm 10\%$	1KHz, 0.1V	46.5	0.088
DRGH855KB103	10000	$\pm 10\%$	1KHz, 0.1V	55.7	0.081

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

DRGH875 Type

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH875MB100	10	$\pm 20\%$	1KHz, 0.1V	0.05	2.90
DRGH875MB120	12	$\pm 20\%$	1KHz, 0.1V	0.06	2.50
DRGH875MB150	15	$\pm 20\%$	1KHz, 0.1V	0.07	2.20
DRGH875MB180	18	$\pm 20\%$	1KHz, 0.1V	0.08	1.90
DRGH875MB220	22	$\pm 20\%$	1KHz, 0.1V	0.09	1.80
DRGH875MB270	27	$\pm 20\%$	1KHz, 0.1V	0.11	1.70
DRGH875MB330	33	$\pm 20\%$	1KHz, 0.1V	0.13	1.50
DRGH875MB390	39	$\pm 20\%$	1KHz, 0.1V	0.14	1.30
DRGH875MB470	47	$\pm 20\%$	1KHz, 0.1V	0.15	1.30
DRGH875MB560	56	$\pm 20\%$	1KHz, 0.1V	0.18	1.20
DRGH875MB680	68	$\pm 20\%$	1KHz, 0.1V	0.20	1.10
DRGH875MB820	82	$\pm 20\%$	1KHz, 0.1V	0.24	1.00
DRGH875KB101	100	$\pm 10\%$	1KHz, 0.1V	0.28	0.89
DRGH875KB121	120	$\pm 10\%$	1KHz, 0.1V	0.36	0.81
DRGH875KB151	150	$\pm 10\%$	1KHz, 0.1V	0.42	0.72
DRGH875KB181	180	$\pm 10\%$	1KHz, 0.1V	0.57	0.66
DRGH875KB221	220	$\pm 10\%$	1KHz, 0.1V	0.63	0.57
DRGH875KB271	270	$\pm 10\%$	1KHz, 0.1V	0.88	0.51
DRGH875KB331	330	$\pm 10\%$	1KHz, 0.1V	1.05	0.46
DRGH875KB391	390	$\pm 10\%$	1KHz, 0.1V	1.17	0.44
DRGH875KB471	470	$\pm 10\%$	1KHz, 0.1V	1.34	0.41
DRGH875KB561	560	$\pm 10\%$	1KHz, 0.1V	1.72	0.36
DRGH875KB681	680	$\pm 10\%$	1KHz, 0.1V	1.96	0.33
DRGH875KB821	820	$\pm 10\%$	1KHz, 0.1V	2.56	0.30
DRGH875KB102	1000	$\pm 10\%$	1KHz, 0.1V	2.94	0.27
DRGH875KB122	1200	$\pm 10\%$	1KHz, 0.1V	4.04	0.24
DRGH875KB152	1500	$\pm 10\%$	1KHz, 0.1V	4.70	0.22
DRGH875KB182	1800	$\pm 10\%$	1KHz, 0.1V	5.05	0.20
DRGH875KB222	2200	$\pm 10\%$	1KHz, 0.1V	6.25	0.18
DRGH875KB272	2700	$\pm 10\%$	1KHz, 0.1V	8.72	0.16
DRGH875KB332	3300	$\pm 10\%$	1KHz, 0.1V	10.6	0.15
DRGH875KB392	3900	$\pm 10\%$	1KHz, 0.1V	14.2	0.14
DRGH875KB472	4700	$\pm 10\%$	1KHz, 0.1V	16.7	0.12
DRGH875KB562	5600	$\pm 10\%$	1KHz, 0.1V	18.7	0.11
DRGH875KB682	6800	$\pm 10\%$	1KHz, 0.1V	21.8	0.10
DRGH875KB822	8200	$\pm 10\%$	1KHz, 0.1V	28.7	0.093
DRGH875KB103	10000	$\pm 10\%$	1KHz, 0.1V	33.0	0.084

■ Viking is capable to design according to customer special requirement

Electrical Characteristics

DRGH895 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH895MB100	10	±20%	100KHz, 0.1V	0.04	2.60
DRGH895MB120	12	±20%	100KHz, 0.1V	0.04	2.60
DRGH895MB150	15	±20%	100KHz, 0.1V	0.05	2.10
DRGH895MB180	18	±20%	100KHz, 0.1V	0.05	2.00
DRGH895MB220	22	±20%	100KHz, 0.1V	0.06	1.70
DRGH895MB270	27	±20%	100KHz, 0.1V	0.06	1.60
DRGH895MB330	33	±20%	100KHz, 0.1V	0.07	1.40
DRGH895MB390	39	±20%	100KHz, 0.1V	0.08	1.40
DRGH895MB470	47	±20%	100KHz, 0.1V	0.10	1.30
DRGH895MB560	56	±20%	100KHz, 0.1V	0.11	1.20
DRGH895MB680	68	±20%	100KHz, 0.1V	0.14	1.10
DRGH895MB820	82	±20%	100KHz, 0.1V	0.16	1.00
DRGH895KB101	100	±10%	1KHz, 0.1V	0.19	0.90
DRGH895KB121	120	±10%	1KHz, 0.1V	0.22	0.82
DRGH895KB151	150	±10%	1KHz, 0.1V	0.27	0.74
DRGH895KB181	180	±10%	1KHz, 0.1V	0.31	0.71
DRGH895KB221	220	±10%	1KHz, 0.1V	0.38	0.64
DRGH895KB271	270	±10%	1KHz, 0.1V	0.53	0.57
DRGH895KB331	330	±10%	1KHz, 0.1V	0.61	0.51
DRGH895KB391	390	±10%	1KHz, 0.1V	0.69	0.48
DRGH895KB471	470	±10%	1KHz, 0.1V	0.89	0.43
DRGH895KB561	560	±10%	1KHz, 0.1V	1.01	0.40
DRGH895KB681	680	±10%	1KHz, 0.1V	1.18	0.35
DRGH895KB821	820	±10%	1KHz, 0.1V	1.57	0.32
DRGH895KB102	1000	±10%	1KHz, 0.1V	1.84	0.30
DRGH895KB102-1	1000	±10%	1KHz, 0.25V	1.84	0.50
DRGH895KB122	1200	±10%	1KHz, 0.1V	2.10	0.27
DRGH895KB152	1500	±10%	1KHz, 0.1V	2.80	0.23
DRGH895KB182	1800	±10%	1KHz, 0.1V	3.21	0.21
DRGH895KB222	2200	±10%	1KHz, 0.1V	4.21	0.19
DRGH895KB272	2700	±10%	1KHz, 0.1V	4.94	0.17
DRGH895KB332	3300	±10%	1KHz, 0.1V	6.16	0.15
DRGH895KB392	3900	±10%	1KHz, 0.1V	6.84	0.14
DRGH895KB472	4700	±10%	1KHz, 0.1V	7.89	0.13
DRGH895KB562	5600	±10%	1KHz, 0.1V	11.50	0.12
DRGH895KB682	6800	±10%	1KHz, 0.1V	13.20	0.11
DRGH895KB822	8200	±10%	1KHz, 0.1V	15.20	0.10
DRGH895□B103	10000	±5%, ±10%	1KHz, 0.1V	22.00	0.089
DRGH895KB123	12000	±10%	1KHz, 0.1V	25.00	0.073
DRGH895KB153	15000	±10%	1KHz, 0.1V	29.10	0.068
DRGH895KB183	18000	±10%	1KHz, 0.1V	38.90	0.066
DRGH895KB223	22000	±10%	1KHz, 0.1V	44.90	0.059
DRGH895KB273	27000	±10%	1KHz, 0.1V	55.70	0.052
DRGH895KB333	33000	±10%	1KHz, 0.1V	64.20	0.048
DRGH895KB393	39000	±10%	1KHz, 0.1V	74.20	0.042
DRGH895KB473	47000	±10%	1KHz, 0.1V	96.40	0.038

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

DRGH110 Type

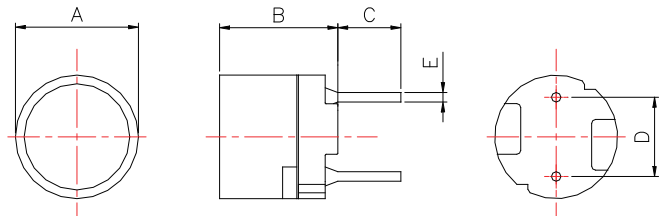
Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
DRGH110MB100	10	$\pm 20\%$	100KHz, 0.1V	0.022	5.30
DRGH110MB120	12	$\pm 20\%$	100KHz, 0.1V	0.023	4.90
DRGH110MB150	15	$\pm 20\%$	100KHz, 0.1V	0.026	4.40
DRGH110MB180	18	$\pm 20\%$	100KHz, 0.1V	0.033	4.00
DRGH110MB220	22	$\pm 20\%$	100KHz, 0.1V	0.037	3.60
DRGH110MB270	27	$\pm 20\%$	100KHz, 0.1V	0.048	3.30
DRGH110MB330	33	$\pm 20\%$	100KHz, 0.1V	0.055	2.90
DRGH110MB390	39	$\pm 20\%$	100KHz, 0.1V	0.073	2.70
DRGH110MB470	47	$\pm 20\%$	100KHz, 0.1V	0.083	2.50
DRGH110MB560	56	$\pm 20\%$	100KHz, 0.1V	0.092	2.30
DRGH110MB560-1	56	$\pm 20\%$	100KHz, 0.1V	0.1113	2.10
DRGH110MB680	68	$\pm 20\%$	100KHz, 0.1V	0.120	2.10
DRGH110MB820	82	$\pm 20\%$	100KHz, 0.1V	0.140	1.90
DRGH110KB101	100	$\pm 10\%$	1KHz, 0.1V	0.160	1.70
DRGH110KB121	120	$\pm 10\%$	1KHz, 0.1V	0.200	1.50
DRGH110KB151	150	$\pm 10\%$	1KHz, 0.1V	0.230	1.40
DRGH110KB181	180	$\pm 10\%$	1KHz, 0.1V	0.310	1.30
DRGH110KB221	220	$\pm 10\%$	1KHz, 0.1V	0.340	1.10
DRGH110KB271	270	$\pm 10\%$	1KHz, 0.1V	0.400	1.00
DRGH110KB331	330	$\pm 10\%$	1KHz, 0.1V	0.520	0.93
DRGH110KB391	390	$\pm 10\%$	1KHz, 0.1V	0.650	0.86
DRGH110KB471	470	$\pm 10\%$	1KHz, 0.1V	0.710	0.78
DRGH110KB561	560	$\pm 10\%$	1KHz, 0.1V	1.000	0.71
DRGH110KB681	680	$\pm 10\%$	1KHz, 0.1V	1.100	0.65
DRGH110KB821	820	$\pm 10\%$	1KHz, 0.1V	1.300	0.59
DRGH110KB102	1000	$\pm 10\%$	1KHz, 0.1V	1.800	0.53

■ Viking is capable to design according to customer special requirement

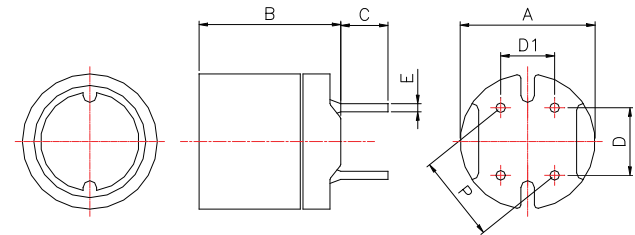
DIP Power Inductor – DRGR Series



DRGR 664 / 875



DRGR 110



Dimensions

Unit: mm

Type	A	B	C	D	D1	E	P
DRGR664	6.0±0.5	6.5 max.	4.0±1.0	4.0±0.3	-	0.50±0.1	-
DRGR875	7.8±0.5	7.5 max.	5.0±1.0	5.0±0.3	-	0.65±0.1	-
DRGR110	10.5±0.5	10.5±0.5	3.5±1.0	5.0±0.3	4.0±0.3	0.80±0.1	6.40±0.5

Features

- Magnetically shielded & DIP type
- Comparatively range rated current and high inductance
- Low radiation and high dip stability

Applications

- Personal Computers
- Variety of Battery Power Equipment
- DC Power Supply Circuits

Characteristics

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range -40~125°C
- Storage Temperature: 5~25°C; Humidity 25~80%RH

Inductance and rated current ranges

- DRGR664 22~1000μH 0.96~0.14A
- DRGR875 22~10000μH 1.60~0.074A
- DRGR110 10~1000μH 3.51~0.35A

- Test equipment:
 L&Q: HP4284A LCR meter
 DCR: Milli-ohm meter
- Electrical specifications at 25°C

Product Identification

DRGR	664	K	B	100
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	664: 6.0x6.5x4.0 875: 7.8x7.5x5.0 110: 10.5x10.5x3.5	M: ±20%	B: Bulk	100: 10μH 101: 100μH 102: 1000μH

Electrical Characteristics

DRGR664 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR664MB220	22	±20%	100KHz, 0.1V	0.13	0.96
DRGR664MB270	27	±20%	100KHz, 0.1V	0.18	0.87
DRGR664MB330	33	±20%	100KHz, 0.1V	0.21	0.78
DRGR664MB390	39	±20%	100KHz, 0.1V	0.26	0.72
DRGR664MB470	47	±20%	100KHz, 0.1V	0.29	0.66
DRGR664MB560	56	±20%	100KHz, 0.1V	0.33	0.60
DRGR664MB680	68	±20%	100KHz, 0.1V	0.36	0.55
DRGR664MB820	82	±20%	100KHz, 0.1V	0.39	0.50
DRGR664MB101	100	±20%	1KHz, 0.1V	0.54	0.45
DRGR664MB121	120	±20%	1KHz, 0.1V	0.62	0.41
DRGR664MB151	150	±20%	1KHz, 0.1V	0.72	0.37
DRGR664MB181	180	±20%	1KHz, 0.1V	0.88	0.34
DRGR664MB221	220	±20%	1KHz, 0.1V	0.99	0.30
DRGR664MB271	270	±20%	1KHz, 0.1V	1.52	0.27
DRGR664MB331	330	±20%	1KHz, 0.1V	1.69	0.25
DRGR664MB391	390	±20%	1KHz, 0.1V	1.85	0.23
DRGR664MB471	470	±20%	1KHz, 0.1V	2.85	0.21
DRGR664MB561	560	±20%	1KHz, 0.1V	3.21	0.19
DRGR664MB681	680	±20%	1KHz, 0.1V	3.60	0.17
DRGR664MB821	820	±20%	1KHz, 0.1V	4.87	0.16
DRGR664MB102	1000	±20%	1KHz, 0.1V	5.56	0.14

DRGR875 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR875MB220	22	±20%	100KHz, 0.1V	0.08	1.60
DRGR875MB270	27	±20%	100KHz, 0.1V	0.10	1.40
DRGR875MB330	33	±20%	100KHz, 0.1V	0.14	1.30
DRGR875MB390	39	±20%	100KHz, 0.1V	0.15	1.20
DRGR875MB470	47	±20%	100KHz, 0.1V	0.17	1.10
DRGR875MB560	56	±20%	100KHz, 0.1V	0.19	0.99
DRGR875MB680	68	±20%	100KHz, 0.1V	0.21	0.89
DRGR875MB820	82	±20%	100KHz, 0.1V	0.27	0.81
DRGR875MB101	100	±20%	1KHz, 0.1V	0.32	0.74
DRGR875MB121	120	±20%	1KHz, 0.1V	0.36	0.67
DRGR875MB151	150	±20%	1KHz, 0.1V	0.51	0.60
DRGR875MB181	180	±20%	1KHz, 0.1V	0.57	0.55
DRGR875MB221	220	±20%	1KHz, 0.1V	0.76	0.50
DRGR875MB271	270	±20%	1KHz, 0.1V	0.86	0.45
DRGR875MB331	330	±20%	1KHz, 0.1V	0.97	0.41
DRGR875MB391	390	±20%	1KHz, 0.1V	1.28	0.37
DRGR875MB471	470	±20%	1KHz, 0.1V	1.44	0.34
DRGR875MB561	560	±20%	1KHz, 0.1V	1.61	0.31
DRGR875MB681	680	±20%	1KHz, 0.1V	2.07	0.28
DRGR875MB821	820	±20%	1KHz, 0.1V	2.33	0.26
DRGR875MB102	1000	±20%	1KHz, 0.1V	2.72	0.23
DRGR875MB122	1200	±20%	1KHz, 0.1V	3.98	0.21
DRGR875MB152	1500	±20%	1KHz, 0.1V	4.50	0.19
DRGR875MB182	1800	±20%	1KHz, 0.1V	6.81	0.17
DRGR875MB222	2200	±20%	1KHz, 0.1V	7.56	0.16
DRGR875MB272	2700	±20%	1KHz, 0.1V	8.54	0.14
DRGR875MB332	3300	±20%	1KHz, 0.1V	9.74	0.13
DRGR875MB392	3900	±20%	1KHz, 0.1V	12.90	0.12
DRGR875MB472	4700	±20%	1KHz, 0.1V	14.70	0.11
DRGR875MB562	5600	±20%	1KHz, 0.1V	20.40	0.099
DRGR875MB682	6800	±20%	1KHz, 0.1V	23.00	0.089
DRGR875MB822	8200	±20%	1KHz, 0.1V	30.60	0.081
DRGR875MB103	10000	±20%	1KHz, 0.1V	35.00	0.074

■ Viking is capable to design according to customer special requirement

■ Electrical Characteristics

DRGR110 Type

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max	IDC (A) max.
DRGR110MB100	10	±20%	100KHz, 0.1V	0.023	3.51
DRGR110MB120	12	±20%	100KHz, 0.1V	0.024	3.24
DRGR110MB150	15	±20%	100KHz, 0.1V	0.036	2.88
DRGR110MB180	18	±20%	100KHz, 0.1V	0.039	2.61
DRGR110MB220	22	±20%	100KHz, 0.1V	0.042	2.34
DRGR110MB270	27	±20%	100KHz, 0.1V	0.045	2.16
DRGR110MB330	33	±20%	100KHz, 0.1V	0.057	1.89
DRGR110MB390	39	±20%	100KHz, 0.1V	0.076	1.80
DRGR110MB470	47	±20%	100KHz, 0.1V	0.100	1.62
DRGR110MB560	56	±20%	100KHz, 0.1V	0.110	1.44
DRGR110MB680	68	±20%	100KHz, 0.1V	0.150	1.35
DRGR110MB820	82	±20%	100KHz, 0.1V	0.160	1.26
DRGR110MB101	100	±20%	1KHz, 0.1V	0.190	1.08
DRGR110MB121	120	±20%	1KHz, 0.1V	0.210	0.99
DRGR110MB151	150	±20%	1KHz, 0.1V	0.230	0.90
DRGR110MB181	180	±20%	1KHz, 0.1V	0.260	0.82
DRGR110MB221	220	±20%	1KHz, 0.1V	0.290	0.74
DRGR110MB271	270	±20%	1KHz, 0.1V	0.360	0.67
DRGR110MB331	330	±20%	1KHz, 0.1V	0.510	0.61
DRGR110MB391	390	±20%	1KHz, 0.1V	0.690	0.55
DRGR110MB471	470	±20%	1KHz, 0.1V	0.980	0.51
DRGR110MB561	560	±20%	1KHz, 0.1V	1.100	0.46
DRGR110MB681	680	±20%	1KHz, 0.1V	1.200	0.42
DRGR110MB821	820	±20%	1KHz, 0.1V	1.300	0.38
DRGR110MB102	1000	±20%	1KHz, 0.1V	1.500	0.35

■ Viking is capable to design according to customer special requirement

Reliability of DIP Ferrite Wire Wound Power Inductor

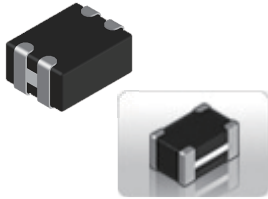
■ Mechanical Performance

Item	Requirement	Test Method
Vibration	Appearance: No damage L change: within±10% RDC: within specification	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min. Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
Resistance to Soldering Heat	Appearance: No Damage	Pre-heating: 150°C, 1min. Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 260±5°C Immersion Time: 4±1Sec.
Solderability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag/Cu=95.6/3.0/0.5 Solder Temperature: 245±5°C Immersion Time: 4±1sec

■ Environmental Performance

Item	Requirement	Test Method		
Temperature Shock	Appearance: No damage L change: within±10% RDC: within specification	10 cycles (Air to Air) 1 cycles shall consist of: 30 minutes exposure to -55 °C 30 minutes exposure to 125 °C 15 seconds maximum transition between temperatures		
Temperature Cycle		One cycle:		
		Step	Temperature (°C)	Time (min.)
		1	-25±3	30
		2	25±2	3
		3	85±3	30
4	25±2	3		
		Total: 100 cycles Measured after exposure in the room condition for 24hrs		
Humidity Resistance		Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000 hrs Measured after exposure in the room condition for 24hrs		
Heat Temperature Resistance		Temperature: 85±3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000 hrs Measured after exposure in the room condition for 24hrs		
Low Temperature Resistance		Temperature: -25±3°C Relative Humidity: 0% Time: 1000 hrs Measured after exposure in the room condition for 24hrs		

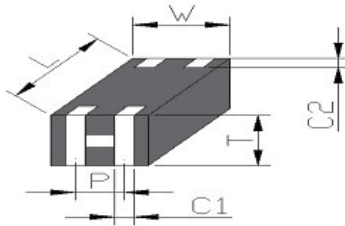
Automotive Grade Multilayer Common Mode Filter – CMX..A Series



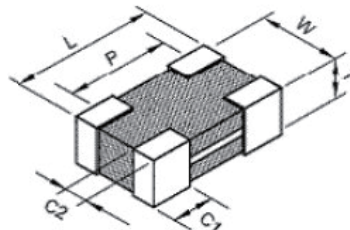
■ Features and Application

- Powerful components with composite co-fired material to solve EMI problem for high speed differential signal transmission line as USB, and LVDS, without distortion to high speed signal transmission.
- MIPI, MHL serial interface in mobile device
- AEC-Q200 Compliance

■ Dimensions



CMX04W



CMX05W

Unit: mm

Type	Sizes (Inch)	L	W	T	P	C1	C2
CMX04W	0504	1.25±0.10	1.00±0.10	0.60±0.10	0.50±0.10	0.30±0.10	0.20±0.15
CMX05W	0805	2.00±0.20	1.25±0.20	1.00±0.10	1.60±0.20	0.40±0.20	0.30±0.20

■ Part Numbering

CMX	04W	Y	T	900	A
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Impedance	Function Code
	04W: 0504 05W: 0805	Y: ±25%	T: Taping Reel	900: 90Ω	A: Automotive Grade

■ Standard Electrical Specifications

CMX04W Type

Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
67	±25%	100	0.50	300	10	25	200
90	±25%	100	0.60	300	10	25	200

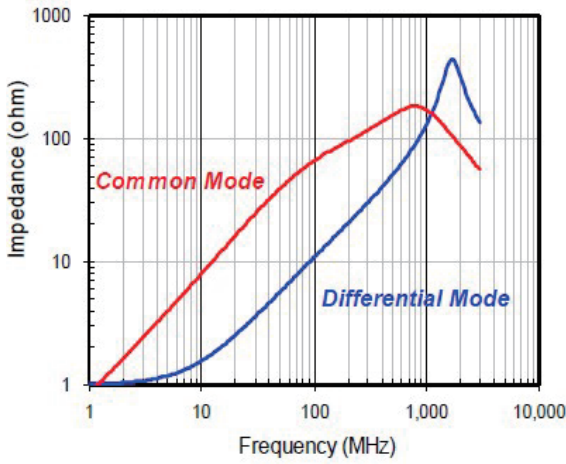
CMX05W Type

Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	Rated Current (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage (V)	Insulation Resistance (MΩ) min.
67	±25%	100	0.40	400	10	25	200
90	±25%	100	0.40	400	10	25	200
120	±25%	100	0.40	400	10	25	200
160	±25%	100	0.50	400	10	25	200
180	±25%	100	0.50	400	10	25	200
220	±25%	100	0.50	300	10	25	200

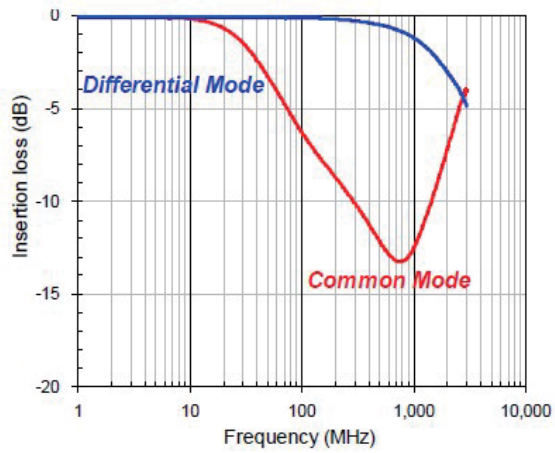
■ Viking is capable to design according to customer special requirement.

Characteristics

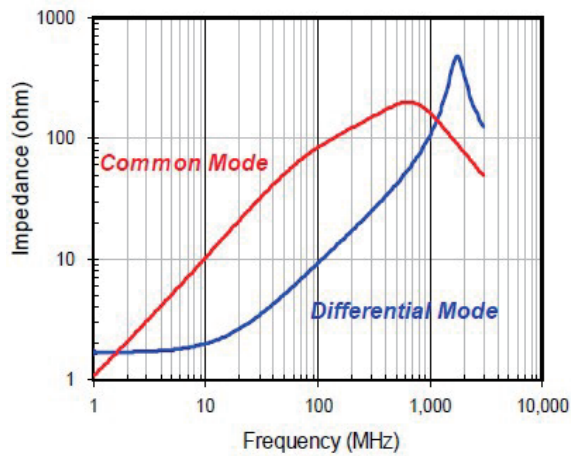
CMX04WYT670A Impedance vs. Frequency



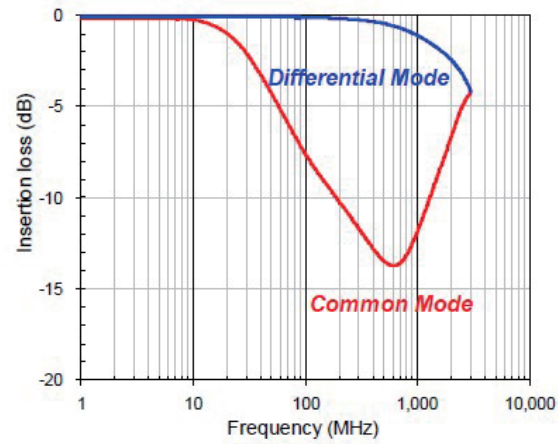
CMX04WYT670A Insertion Loss vs. Frequency



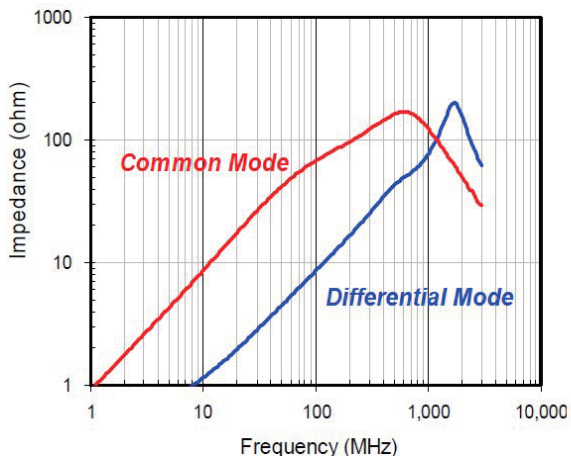
CMX04WYT900A Impedance vs. Frequency



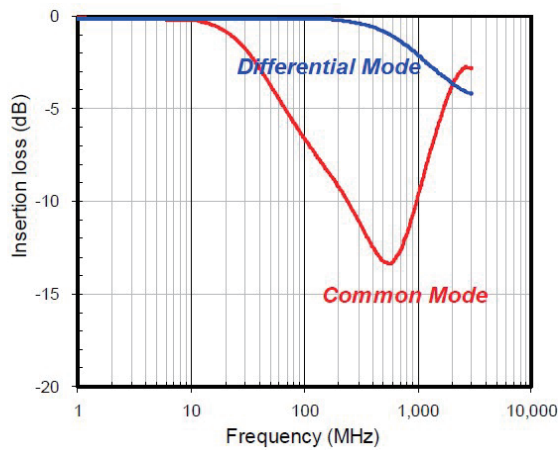
CMX04WYT900A Insertion Loss vs. Frequency



CMX05WYT670A Impedance vs. Frequency

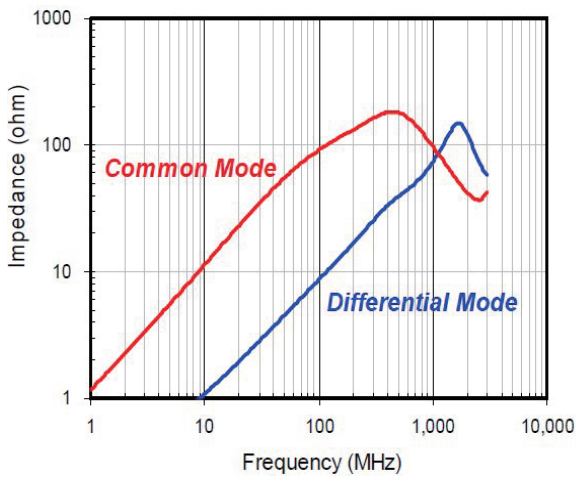


CMX05WYT670A Insertion Loss vs. Frequency

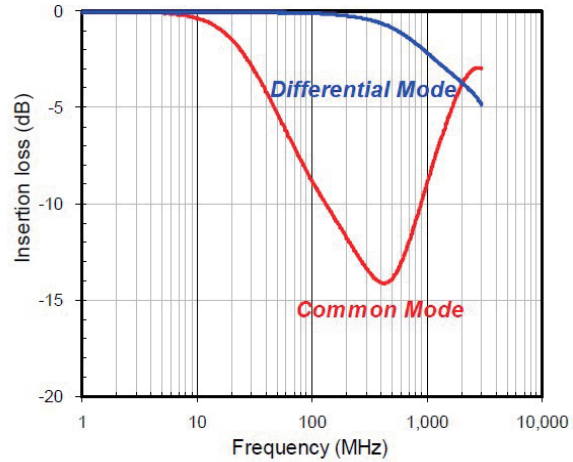


Characteristics

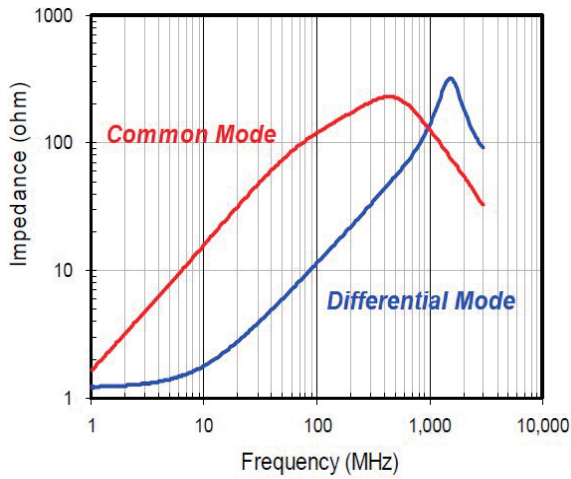
CMX05WYT900A Impedance vs. Frequency



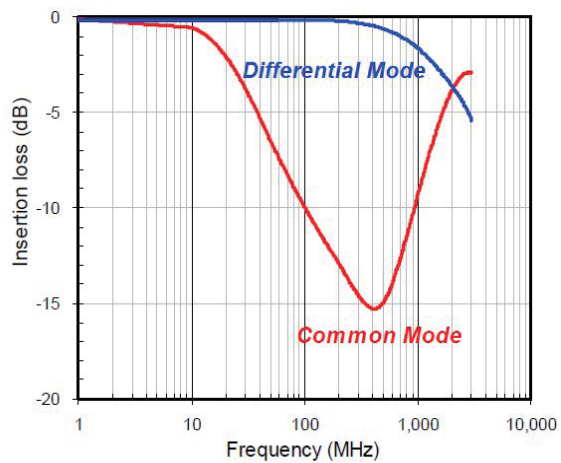
CMX05WYT900A Insertion Loss vs. Frequency



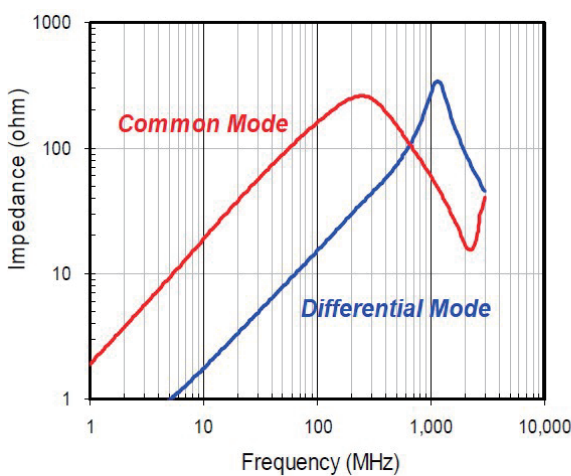
CMX05WYT121A Impedance vs. Frequency



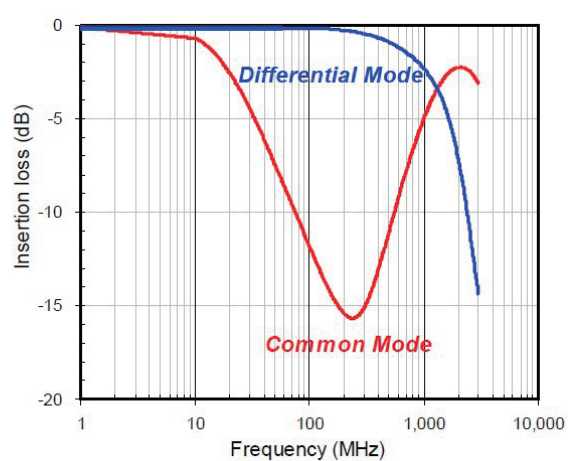
CMX05WYT121A Insertion Loss vs. Frequency



CMX05WYT161A Impedance vs. Frequency

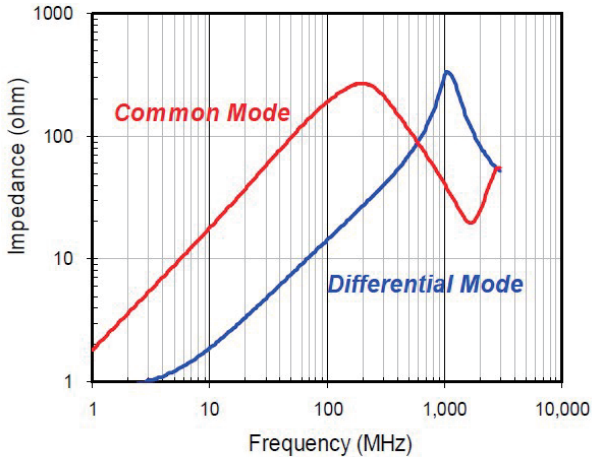


CMX05WYT161A Insertion Loss vs. Frequency

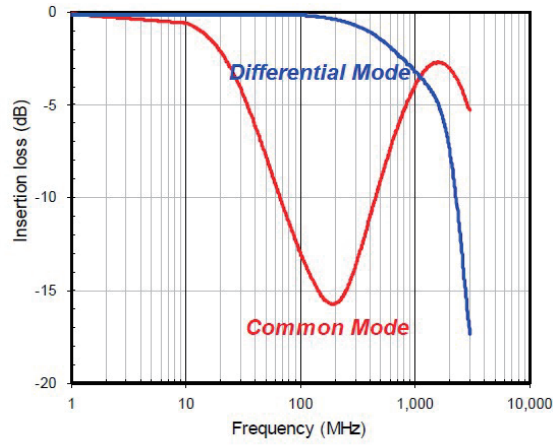


■ Characteristics

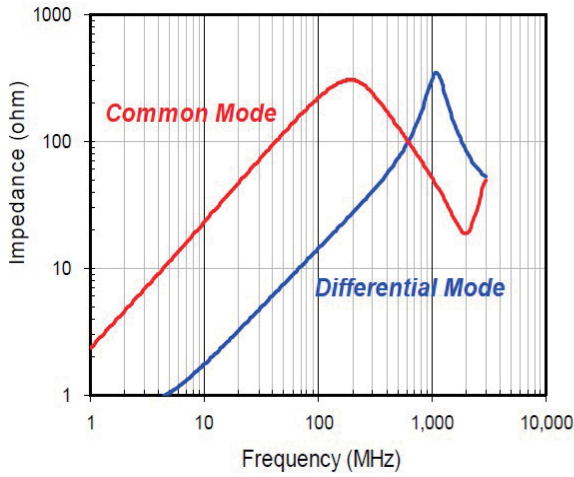
CMX05WYT181A Impedance vs. Frequency



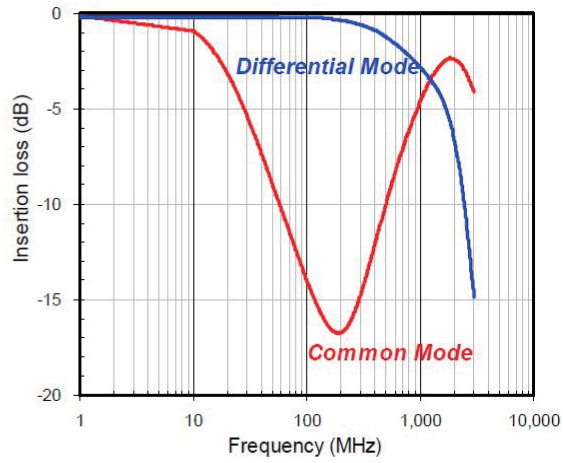
CMX05WYT181A Insertion Loss vs. Frequency



CMX05WYT221A Impedance vs. Frequency



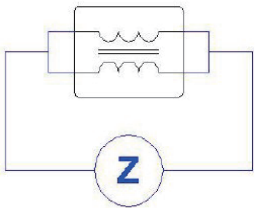
CMX05WYT221A Insertion Loss vs. Frequency



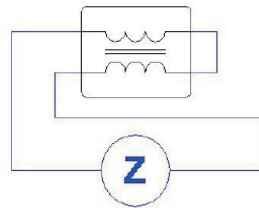
■ Measuring Circuits

CMX04W

(A): Common mode

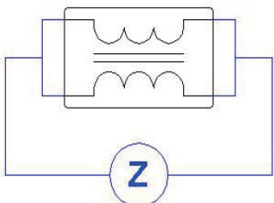


(B): Differential mode

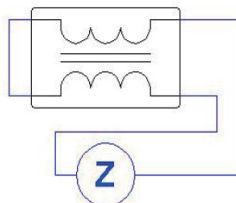


CMX05W

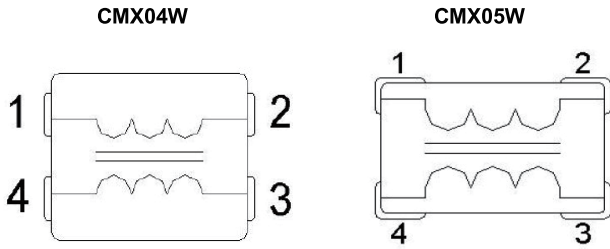
(A): Common mode



(B): Differential mode

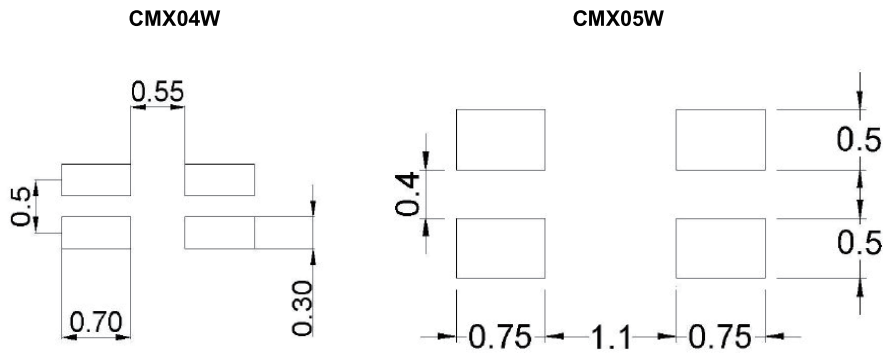


■ Circuit Configuration

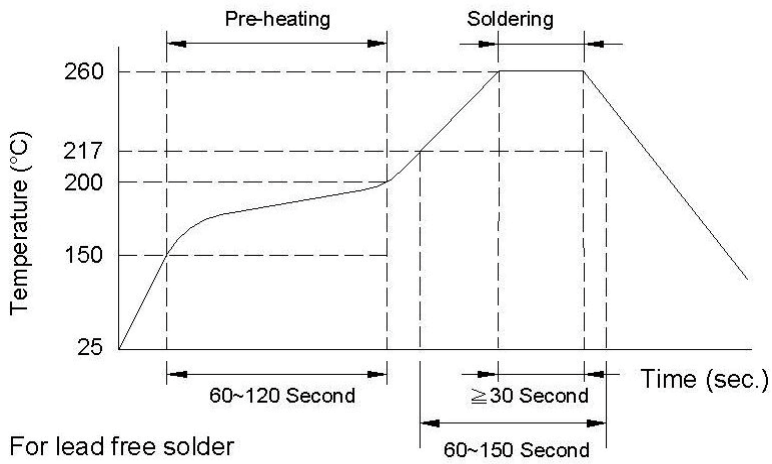


■ Recommended Land Pattern

Unit: mm



■ Recommended Soldering Conditions



■ Environmental Characteristics

Items	Requirement	Test Conditions / Test Methods
Temperature Cycle	No mechanical damage Impedance should be within $\pm 20\%$ of the initial value	Temperature: $-55 \sim +125^{\circ}\text{C}$ Cycle : 1000cycles Dwell time: 30minutes Measurement : at ambient temperature 24 hrs after test completion
Operational Life		Temperature: $125 \pm 5^{\circ}\text{C}$ Test time: 1000hrs Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion
Biased Humidity		Temperature: $85 \pm 2^{\circ}\text{C}$ Humidity : 85 % RH Test time: 1000hrs Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion
High Temperature Exposure		Temperature: $125 \pm 5^{\circ}\text{C}$ Test time: 1000hrs Measurement : at ambient temperature 24 hrs after test completion
Resistance to Solder Heat	Impedance should be within $\pm 20\%$ of the initial value	Solder temperature: $260 \pm 5^{\circ}\text{C}$ Flux: Rosin DIP time: 10 ± 1 sec
Terminal Strength	No mechanical damage	0504 size: Apply force of 5N for 30 seconds 0805 size: Apply force of 17.7N for 60 seconds
Board Flex		Epoxy-PCB(1.6mm) Deflection 2mm(min) 60s min holding time
Mechanical Shock	No mechanical damage	Condition F: 1500g's/0.5ms/half sine
Vibration	DCR value should be within $\pm 30\%$ of the initial value	5g's for 20min, 12cycles each of 3 orientations Test from 10-2000Hz., 12cycleseach of orientations

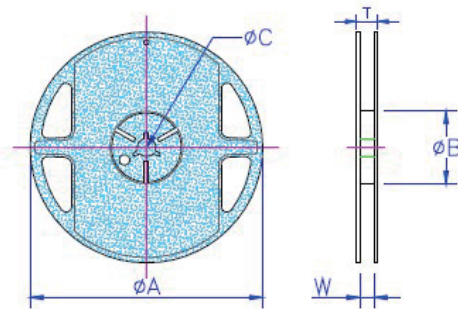
■ Storage Temperature: $<40^{\circ}\text{C}$; Humidity 70%RH

■ Operating Temperature: $-55 \sim +125^{\circ}\text{C}$

■ Storage Time: 6 months max.

Packaging

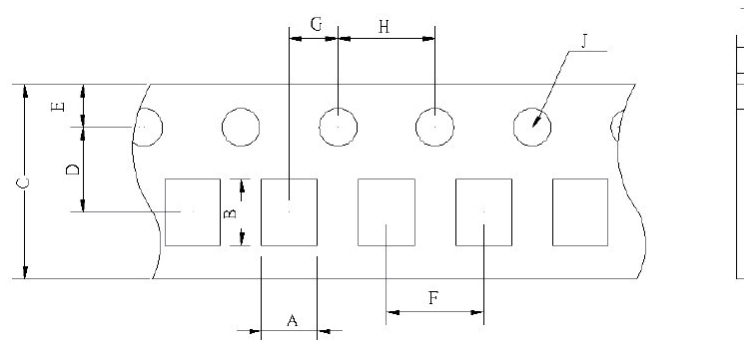
Packaging Quantity & Reel Specifications



Unit: mm

Type	ØA	ØB	ØC	W	T	Quantity (EA)
CMX04W	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	4000
CMX05W	178±1	60+0.5/-0	13.0±0.2	9.0±0.5	12.0±0.15	3000

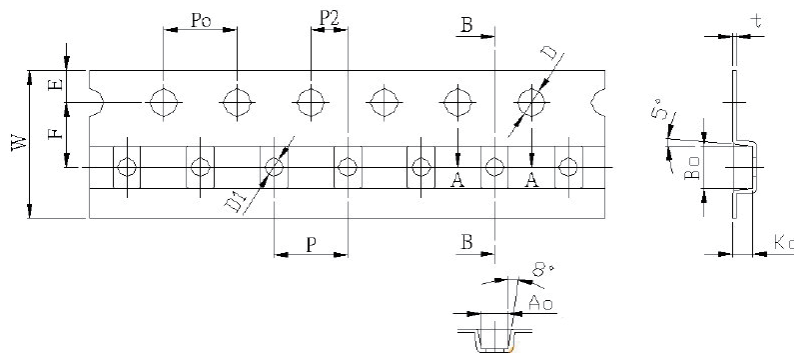
Paper Tape Specifications



Unit: mm

Type	A	B	C	D	E	F	G	H	J	T
CMX04W	1.20±0.05	1.45±0.05	8.0±0.10	3.5±0.05	1.75±0.05	4.00±0.10	2.00±0.05	4.00±0.10	1.55±0.05	0.75±0.03

Emboss Plastic Tape Specifications



Unit: mm

Type	A0	B0	W	E	F	P	P0	P2	D	D1	K0	t
CMX05W	1.40±0.10	2.30±0.10	8.0±0.10	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.5+0.10/-0	1.00±0.10	1.13±0.10	0.22±0.05

Automotive Grade SMD Power Inductor – SDIA..A Series



Features

- Small and Low profile inductor
- It corresponds to high current
- Shield structure magnetically
- Strong structure against a shock-proof
- AEC-Q200 Compliance

Applications

- LCD Display etc
- For Small DC to DC Converters
- PDA

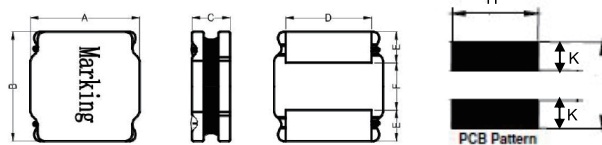
Characteristics

- Saturation Current(I sat): The current when the inductance becomes 30% lower than its initial value.
- Temperature Rise Current(I rms): The actual current when temperature of coil becomes $\Delta T=40^{\circ}\text{C}$.

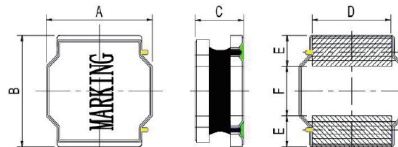
Inductance and rated current ranges

- SDIA0315 1.0~47 μH 2.10~0.32A
- SDIA0418 1.0~100 μH 4.00~0.40A
- SDIA0430 1.0~100 μH 5.26~0.60A
- SDIA0520 1.0~47 μH 4.33~0.81A
- SDIA0540 1.0~220 μH 7.35~0.45A
- SDIA0628 1.0~100 μH 6.70~0.65A
- SDIA0645 2.2~220 μH 6.00~0.80A

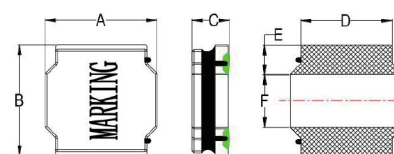
SDIA0315



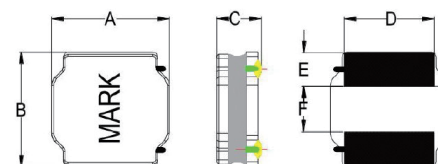
SDIA0418



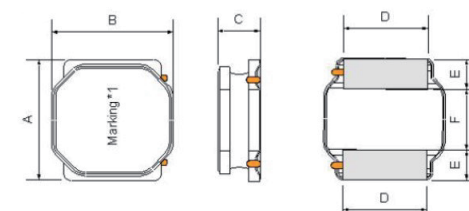
SDIA0430 / 0628



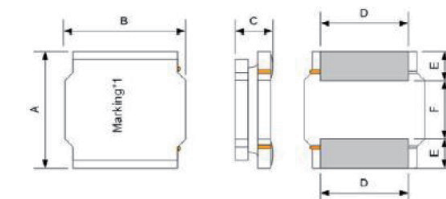
SDIA0520



SDIA0540



SDIA0645



Dimensions

Unit: mm

Type	A	B	C	D	E	F	H	J	K
SDIA0315	3.0±0.2	3.0±0.2	1.5±0.1	2.5±0.5	0.9±0.5	1.2±0.5	2.7	3.0	0.8
SDIA0418	4.0±0.2	4.0±0.2	1.8+0.2/-0.3	3.3±0.5	1.1±0.5	1.8±0.5	3.7	4.0	1.2
SDIA0430	4.0±0.2	4.0±0.2	3.0+0.2/-0.3	3.3±0.5	1.1±0.5	1.8±0.5	3.7	4.0	1.2
SDIA0520	5.0±0.2	5.0±0.2	2.0+0.2/-0.3	4.0±0.5	1.25±0.5	2.5±0.5	4.7	5.0	1.5
SDIA0540	5.0±0.2	5.0±0.2	4.0+0.2/-0.3	4.0±0.5	1.5±0.5	2.0±0.5	4.7	5.0	1.5
SDIA0628	6.0±0.3	6.0±0.3	2.8+0.2/-0.3	4.9±0.5	1.75±0.5	2.5±0.5	5.7	6.3	1.6
SDIA0645	6.0±0.3	6.0±0.3	4.5+0.2/-0.3	4.9±0.5	1.65±0.5	2.7±0.5	5.7	6.3	1.6

Product Identification

SDIA	0315	M	T	470	A
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance	Function Code
	0315: 3.0x1.5 0418: 4.0x1.8 0430: 4.0x3.0 0520: 5.0x2.0 0540: 5.0x4.0 0628: 6.0x2.8 0645: 6.0x4.5	M: $\pm 20\%$ N: $\pm 30\%$	T: Tape and Reel	1R0: 1.0 μ H 470: 47 μ H 101: 100 μ H	A: Automotive Grade

Electrical Characteristics

SDIA0315 Type:

Part No	L (μ H)	Tolerance	Test Condition	DCR (m Ω) $\pm 30\%$	Isat (A) max.	Irms (A) max.
SDIA0315NT1R0A	1.0	$\pm 30\%$	100KHz, 0.25V	37	2.10	1.90
SDIA0315MT1R5A	1.5	$\pm 20\%$	100KHz, 0.25V	50	1.80	1.70
SDIA0315MT2R2A	2.2	$\pm 20\%$	100KHz, 0.25V	60	1.60	1.45
SDIA0315MT3R3A	3.3	$\pm 20\%$	100KHz, 0.25V	80	1.32	1.20
SDIA0315MT4R7A	4.7	$\pm 20\%$	100KHz, 0.25V	125	1.10	1.08
SDIA0315MT6R8A	6.8	$\pm 20\%$	100KHz, 0.25V	200	0.87	0.85
SDIA0315MT100A	10	$\pm 20\%$	1KHz, 0.25V	250	0.72	0.70
SDIA0315MT150A	15	$\pm 20\%$	1KHz, 0.25V	350	0.65	0.64
SDIA0315MT220A	22	$\pm 20\%$	1KHz, 0.25V	460	0.52	0.57
SDIA0315MT330A	33	$\pm 20\%$	1KHz, 0.25V	780	0.42	0.35
SDIA0315MT470A	47	$\pm 20\%$	1KHz, 0.25V	1200	0.32	0.30

SDIA0418 Type:

Part No	L (μ H)	Tolerance	Test Condition	DCR (m Ω) $\pm 30\%$	Isat (A) max.	Irms (A) max.
SDIA0418NT1R0A	1.0	$\pm 30\%$	100KHz, 0.25V	23	4.00	2.00
SDIA0418NT1R5A	1.5	$\pm 30\%$	100KHz, 0.25V	33	3.35	1.80
SDIA0418MT2R2A	2.2	$\pm 20\%$	100KHz, 0.25V	42	3.00	1.75
SDIA0418MT3R3A	3.3	$\pm 20\%$	100KHz, 0.25V	70	2.45	1.23
SDIA0418MT4R7A	4.7	$\pm 20\%$	100KHz, 0.25V	90	2.00	1.20
SDIA0418MT5R6A	5.6	$\pm 20\%$	100KHz, 0.25V	103	1.60	1.15
SDIA0418MT6R8A	6.8	$\pm 20\%$	100KHz, 0.25V	124	1.45	1.06
SDIA0418MT100A	10	$\pm 20\%$	1KHz, 0.25V	200	1.30	0.90
SDIA0418MT150A	15	$\pm 20\%$	1KHz, 0.25V	268	1.10	0.65
SDIA0418MT220A	22	$\pm 20\%$	1KHz, 0.25V	390	0.80	0.59
SDIA0418MT330A	33	$\pm 20\%$	1KHz, 0.25V	560	0.65	0.55
SDIA0418MT470A	47	$\pm 20\%$	1KHz, 0.25V	850	0.60	0.42
SDIA0418MT680A	68	$\pm 20\%$	1KHz, 0.25V	1000	0.52	0.32
SDIA0418MT101A	100	$\pm 20\%$	1KHz, 0.25V	1500	0.40	0.25

■ Viking is capable to design according to customer special requirement.

Electrical Characteristics

SDIA0430 Type:

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) ±30%	Isat (A) max.	Irms (A) max.
SDIA0430NT1R0A	1.0	±30%	100KHz, 0.25V	14	5.26	4.15
SDIA0430NT1R5A	1.5	±30%	100KHz, 0.25V	20	4.84	3.34
SDIA0430MT2R2A	2.2	±20%	100KHz, 0.25V	30	4.50	2.95
SDIA0430MT3R3A	3.3	±20%	100KHz, 0.25V	40	3.30	2.40
SDIA0430MT4R7A	4.7	±20%	100KHz, 0.25V	60	2.90	2.00
SDIA0430MT6R8A	6.8	±20%	100KHz, 0.25V	90	2.75	1.60
SDIA0430MT100A	10	±20%	1KHz, 0.25V	100	1.95	1.50
SDIA0430MT150A	15	±20%	1KHz, 0.25V	190	1.65	1.11
SDIA0430MT220A	22	±20%	1KHz, 0.25V	225	1.30	1.00
SDIA0430MT330A	33	±20%	1KHz, 0.25V	330	1.10	0.84
SDIA0430MT470A	47	±20%	1KHz, 0.25V	445	0.95	0.72
SDIA0430MT680A	68	±20%	1KHz, 0.25V	868	0.72	0.52
SDIA0430MT820A	82	±20%	1KHz, 0.25V	1060	0.66	0.47
SDIA0430MT101A	100	±20%	1KHz, 0.25V	1150	0.60	0.45

SDIA0520 Type:

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) ±30%	Isat (A) max.	Irms (A) max.
SDIA0520NT1R0A	1.0	±30%	100KHz, 0.25V	20	4.33	4.30
SDIA0520NT1R5A	1.5	±30%	100KHz, 0.25V	26	4.10	3.20
SDIA0520MT2R2A	2.2	±20%	100KHz, 0.25V	38	3.85	2.90
SDIA0520MT3R3A	3.3	±20%	100KHz, 0.25V	46	3.25	2.50
SDIA0520MT4R7A	4.7	±20%	100KHz, 0.25V	65	2.40	2.20
SDIA0520MT6R8A	6.8	±20%	100KHz, 0.25V	92	2.10	1.80
SDIA0520MT8R2A	8.2	±20%	100KHz, 0.25V	100	1.90	1.68
SDIA0520MT100A	10	±20%	1KHz, 0.25V	125	1.80	1.45
SDIA0520MT150A	15	±20%	1KHz, 0.25V	180	1.44	1.25
SDIA0520MT220A	22	±20%	1KHz, 0.25V	250	1.18	1.10
SDIA0520MT330A	33	±20%	1KHz, 0.25V	370	0.97	0.93
SDIA0520MT470A	47	±20%	1KHz, 0.25V	560	0.81	0.77

SDIA0540 Type:

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) ±30%	Isat (A) max.	Irms (A) max.
SDIA0540NT1R0A	1.0	±30%	100KHz, 0.25V	12	7.35	4.90
SDIA0540NT1R5A	1.5	±30%	100KHz, 0.25V	15	6.40	4.30
SDIA0540MT2R2A	2.2	±20%	100KHz, 0.25V	19	5.00	3.80
SDIA0540MT3R3A	3.3	±20%	100KHz, 0.25V	24	4.00	3.40
SDIA0540MT4R7A	4.7	±20%	100KHz, 0.25V	30	3.50	3.00
SDIA0540MT6R8A	6.8	±20%	100KHz, 0.25V	43	2.90	2.50
SDIA0540MT100A	10	±20%	1KHz, 0.25V	64	2.35	2.10
SDIA0540MT150A	15	±20%	1KHz, 0.25V	86	2.00	2.00
SDIA0540MT220A	22	±20%	1KHz, 0.25V	129	1.60	1.50
SDIA0540MT330A	33	±20%	1KHz, 0.25V	188	1.30	1.20
SDIA0540MT470A	47	±20%	1KHz, 0.25V	272	1.10	1.00
SDIA0540MT680A	68	±20%	1KHz, 0.25V	400	0.90	0.80
SDIA0540MT101A	100	±20%	1KHz, 0.25V	560	0.75	0.70
SDIA0540MT151A	150	±20%	1KHz, 0.25V	1180	0.55	0.50
SDIA0540MT221A	220	±20%	1KHz, 0.25V	1450	0.45	0.45

■ Viking is capable to design according to customer special requirement.

■ Electrical Characteristics

SDIA0628 Type:

Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) ±30%	Isat (A) max.	Irms (A) max.
SDIA0628NT1R0A	1.0	±30%	100KHz, 0.25V	12	6.70	5.20
SDIA0628MT1R5A	1.5	±20%	100KHz, 0.25V	16	6.00	4.50
SDIA0628MT2R2A	2.2	±20%	100KHz, 0.25V	20	5.10	3.80
SDIA0628MT3R3A	3.3	±20%	100KHz, 0.25V	25	3.63	3.20
SDIA0628MT4R7A	4.7	±20%	100KHz, 0.25V	33	3.00	2.70
SDIA0628MT6R8A	6.8	±20%	100KHz, 0.25V	56	2.60	2.20
SDIA0628MT100A	10	±20%	1KHz, 0.25V	78	2.05	1.80
SDIA0628MT150A	15	±20%	1KHz, 0.25V	125	1.75	1.70
SDIA0628MT180A	18	±20%	1KHz, 0.25V	130	1.55	1.50
SDIA0628MT220A	22	±20%	1KHz, 0.25V	140	1.45	1.40
SDIA0628MT270A	27	±20%	1KHz, 0.25V	180	1.40	1.20
SDIA0628MT330A	33	±20%	1KHz, 0.25V	220	1.36	1.10
SDIA0628MT470A	47	±20%	1KHz, 0.25V	280	1.15	1.00
SDIA0628MT680A	68	±20%	1KHz, 0.25V	450	0.95	0.80
SDIA0628MT820A	82	±20%	1KHz, 0.25V	550	0.80	0.70
SDIA0628MT101A	100	±20%	1KHz, 0.25V	670	0.65	0.60

SDIA0645 Type:

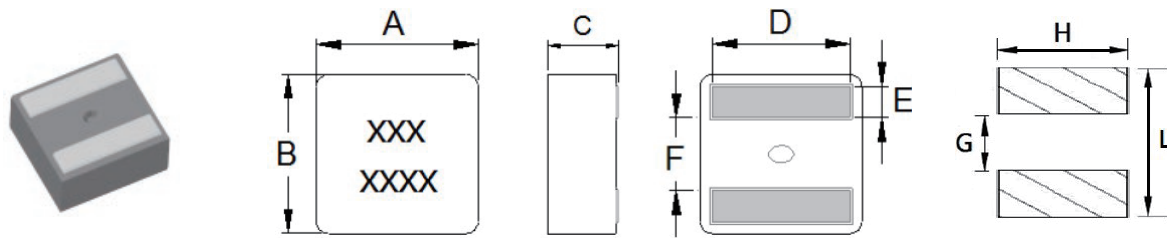
Part No	L (μH)	Tolerance	Test Condition	DCR (mΩ) ±30%	Isat (A) max.	Irms (A) max.
SDIA0645MT2R2A	2.2	±20%	100KHz, 0.25V	21	6.00	4.00
SDIA0645MT3R3A	3.3	±20%	100KHz, 0.25V	23	5.20	3.00
SDIA0645MT4R7A	4.7	±20%	100KHz, 0.25V	26	4.00	3.00
SDIA0645MT6R8A	6.8	±20%	100KHz, 0.25V	40	3.80	3.00
SDIA0645MT100A	10	±20%	1KHz, 0.25V	46	3.10	2.50
SDIA0645MT150A	15	±20%	1KHz, 0.25V	70	2.50	2.00
SDIA0645MT220A	22	±20%	1KHz, 0.25V	107	2.00	1.80
SDIA0645MT330A	33	±20%	1KHz, 0.25V	141	1.65	1.45
SDIA0645MT470A	47	±20%	1KHz, 0.25V	211	1.40	1.25
SDIA0645MT560A	56	±20%	1KHz, 0.25V	221	1.30	1.05
SDIA0645MT680A	68	±20%	1KHz, 0.25V	304	1.10	0.90
SDIA0645MT101A	100	±20%	1KHz, 0.25V	466	0.90	0.70
SDIA0645MT151A	150	±20%	1KHz, 0.25V	600	0.80	0.50
SDIA0645MT221A	220	±20%	1KHz, 0.25V	1100	0.80	0.45

■ Viking is capable to design according to customer special requirement.

■ Environmental Characteristics

Item	Requirement	Test Conditions
Operational Life	Inductance: within $\pm 20\%$ of the initial value Appearance without damage	At 105°C storage for 1000 hrs
Biased Humidity		At 85°C 85%RH storage for 1000 hrs
High Temperature Exposure (Storage)		At 125°C storage for 1000 hrs
ESD Test		@500V, clamp measurement made 30 ns after initiation of pulse, all test in contact discharge mode. ESD pulse : 10 hits
Resistance to Solder Heat	Inductance: within $\pm 20\%$ of the initial value Appearance without damage The termination area should be covered by solder over 95% and won't come off	Put the sample on board by tape. Brush flux and put the board into solder bath 260 \pm 5°C, 10 \pm 1 sec
Resistance to Solvent	Appearance without damage	Refer to MIL-STD-202-215 test Solvent 1~4.
Board Flex	Inductance: within $\pm 20\%$ of the initial value Appearance without damage	Testing sample should be welding on board. Press the center of sample in the rate 1.0mm/sec until it is bend to 3mm for 60sec.
Terminal Strength		Weld testing sample on the testing board, pushing it with 1.8Kgf,60 \pm 1sec.
Temperature Cycling		Run 1000 cycle as following steps Step1: -40 \pm 3°C 30 \pm 3min Step1: +125 \pm 3°C 30 \pm 3min
Mechanical Shock		Pulse shape: Half-sine waveform Impact acceleration: 100 g Pulse duration: 6 ms Number of shocks:18 shocks (3 shocks for each face) Orientation: Bottom, top, left, right, front and rear faces
Vibration		Vibration waveform: Sine waveform Vibration frequency / Displacement: 10 to 40 Hz/ 1.52 mm Vibration frequency / Acceleration: 40 to 2000Hz / 5 g Cycle time: 20 minute Number of cycles: 12 cycles for each axis Vibration axes: X, Y and Z (Rotating each axis on vertical vibration table)
Solderability	The termination area should be covered by solder over 95% and won't come off.	Put the sample on board by tape. Brush flux and put the board into solder bath 260 \pm 5°C , 30+0/-0.5sec.
Operating Temperature Range	-45 ~ + 125°C	Products heating temperature.
Storage Temperature Range	-40 ~ + 85°C	In packing state.

Automotive Grade Shielded SMD Power Inductor – SDA..A Series



Dimensions

Unit: mm

Type	A	B	C	D	E	F	G	H	L
SDA0630(≥1R2)	7.2±0.2	6.9±0.2	2.8±0.2	See table	1.4±0.2	2.6±0.2	2.5	5.6	5.6
SDA0630(≤1R5)			2.9±0.2						

Features

- Soft saturation
- High current · low DCR · high efficiency
- Very low acoustic noise and very low leakage flux noise
- High reliability
- 100% Lead(Pb)-Free and RoHS compliant
- High reliability -Reliability test complied to AEC-Q200

Inductance and rated current ranges

- SDA0630A 0.18μH~4.5μH 36~8A
- Test equipment:
 L: HP4284A LCR meter
 DCR: Milli-ohm meter

Applications

- Note PC power system · incl. IMVP-6
- DC/DC converters

Characteristics

- Saturation Rated Current (I sat) : The DC current when the inductance becomes 30% lower than its initial value.
- Operating temperature range:-55~+125°C (Including self - temperature rise)
- The part temperature (ambient + temp rise) should not exceed 155°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Storage Temperature: <40°C; Humidity 60%RH

Product Identification

SDA	0630	M	T	A	R18	A
Product Type	Dimensions (BxC)	Inductor Tolerance	Packaging Style	Material Code	Inductance	Function Code
	0630: 6.4×2.9	M: ±20%	T: Tape and Reel	A: A Material	R18: 0.18μH 1R0: 1.0μH	A: Automotive Grade

Electrical Characteristics

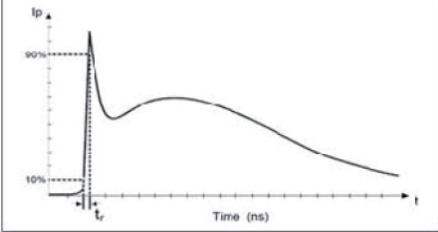
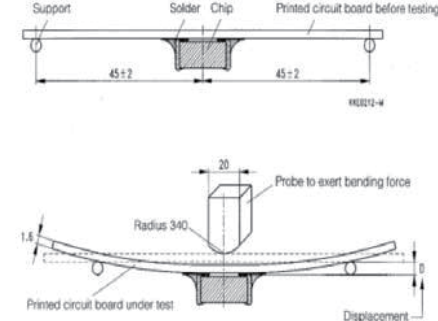
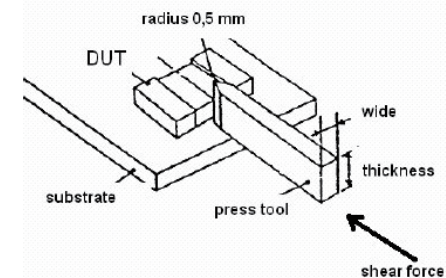
SDA0630A..A Type

Codes	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A)		I _{rms} (A) Typ		D (mm)
				Typ.	Max.	Typ.	Max.	ΔT 20°C	ΔT 40°C	
SDA0630MTAR18A	0.18	±20%	100KHz, 0.1V	1.60	1.75	40.0	36.0	24.0	32.0	5.30±0.3
SDA0630MTAR33A	0.33	±20%	100KHz, 0.1V	2.25	2.50	32.0	28.0	20.0	25.0	5.55±0.3
SDA0630MTAR56A	0.56	±20%	100KHz, 0.1V	3.00	3.31	29.0	25.0	17.0	22.0	5.30±0.3
SDA0630MTA1R0A	1.0	±20%	100KHz, 0.1V	5.50	6.05	23.0	18.0	13.0	18.0	5.20±0.3
SDA0630MTA1R2A	1.2	±20%	100KHz, 0.1V	6.70	7.40	22.0	16.0	12.0	16.0	5.15±0.3
SDA0630MTA1R8A	1.8	±20%	100KHz, 0.1V	9.20	10.2	18.2	13.0	10.0	14.0	5.10±0.3
SDA0630MTA2R2A	2.2	±20%	100KHz, 0.1V	11.0	12.2	15.9	11.0	7.0	10.0	5.05±0.3
SDA0630MTA3R3A	3.3	±20%	100KHz, 0.1V	18.8	20.8	12.2	9.00	6.0	8.0	5.00±0.3
SDA0630MTA4R5A	4.5	±20%	100KHz, 0.1V	23.0	25.3	10.0	8.00	5.0	7.0	5.00±0.3

Viking is capable to design according to customer special requirement.

Environmental Characteristics

Item	Requirement	Test Method															
High temperature exposure (storage)		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Temperature : 125±2°C (Inductor) Duration : 1000hrs Min. Measurement at 24±4 hours after test conclusion															
Temperature cycling		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Condition for 1 cycle Step1 : -55±2°C 30min Min.(Inductor) Step2 : 125±2°C transition time 1min MAX. Step3 : 125±2°C 30min Min. Step4 : Low temp. transition time 1min MAX. Number of cycles : 1000 Measured at room temperature after placing for 24±2 hrs															
Moisture Resistance	Appearance : No damage. Inductance : within±10% of initial value RDC: within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles 1. Baked at 50°C for 25hrs, measured at room temperature after placing for 4 hrs. 2. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs. 3. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs, keep at 25°C for 2hrs then keep at -10°C for 3hrs 4. Keep at 25°C 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measure at room temperature after placing for 1~2 hrs.															
Biased Humidity		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Humidity : 85±3% R.H, Temperature : 85°C±2°C Duration : 1000hrs Min with 100% rated current. Measured at room temperature after placing for 24±2hrs															
High Temperature Operational Life		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Temperature : 125±2°C (Inductor) Duration : 1000hrs Min. with 100% rated current. Measured at room temperature after placing for 24±2hrs															
External Visual	Appearance : No damage	Inspect device construction, marking and workmanship. Electrical Test not required.															
Physical Dimension	According to the product specification size measurement	According to the product specification size measurement															
Resistance to Solvents	Appearance : No damage	Add aqueous wash chemical - OKEM clean or equivalent															
Mechanical Shock		<table border="1"> <thead> <tr> <th>Type</th> <th>Peak value (g's)</th> <th>Normal duration (D) (ms)</th> <th>Wave form</th> <th>Velocity change (V)ft/sec</th> </tr> </thead> <tbody> <tr> <td>SDM</td> <td>100</td> <td>6</td> <td>Half-sine</td> <td>12.3</td> </tr> <tr> <td>Lead</td> <td>100</td> <td>6</td> <td>Half-sine</td> <td>12.3</td> </tr> </tbody> </table> <p>shocks in each direction along 3 perpendicular axes</p>	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (V)ft/sec	SDM	100	6	Half-sine	12.3	Lead	100	6	Half-sine	12.3
Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (V)ft/sec													
SDM	100	6	Half-sine	12.3													
Lead	100	6	Half-sine	12.3													
Vibration	Appearance : No damage.	IPC/JEDEC J-STD-020D Classification Reflow Profiles Oscillation Frequency: 10~2K~10Hz for 20 minute Equipment : Vibration checker Total Amplitude: 1.52mm±10% Testing Time : 12 hours (20 minutes, 12 cycles each of 3 orientations)															
Resistance to soldering Heat	Inductance : within±10% of initial value RDC: within ±15% of initial value and shall not exceed the specification value	Test condition: <table border="1"> <thead> <tr> <th>Temperature</th> <th>Time</th> <th>Temperature ramp/immersion and emersion rate</th> <th>Number of heat cycles</th> </tr> </thead> <tbody> <tr> <td>260±5°C (solder)</td> <td>10±1s</td> <td>25mm/s±6m/s</td> <td>1</td> </tr> </tbody> </table>	Temperature	Time	Temperature ramp/immersion and emersion rate	Number of heat cycles	260±5°C (solder)	10±1s	25mm/s±6m/s	1							
Temperature	Time	Temperature ramp/immersion and emersion rate	Number of heat cycles														
260±5°C (solder)	10±1s	25mm/s±6m/s	1														
Thermal shock		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Condition for 1 cycle Step1 : -55±2°C 15±1min (Inductor) Step2 : 125±2°C within 20Sec. Step3 : 125±2°C 15±1min Number of cycles : 300 Measured at room temperature after placing for 24±2hrs															

Item	Requirement	Test Method
ESD	Appearance : No damage	
Solderability	More than 95% of the terminal electrode should be covered with solder	Steam Aging: 8 hours ± 15 min Preheat: 150°C, 60sec. Solder: Sn96.5% Ag3% Cu0. 5% Temperature: 245±5°C Flux for lead free: Rosin. 9.5% Dip time: 4±1sec. Depth: completely cover the termination
Electrical Characterization	Refer Specification for Approval	Summary to show Min, Max, Mean and Standard deviation
Flammability	Electrical Test not required	V-0 or V-1 are acceptable
Board Flex	Appearance : No damage	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Place the 100mm X 40mm board into a fixture similar to the one shown in below Figure with the component facing down. The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum. The duration of the applied forces shall be 60 (+ 5) sec. The force is to be applied only once to the board 
Terminal Strength(SMD)	Appearance : No damage	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles With the component mounted on a PCB with the device to be tested, apply a 17.7 N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested 

Note : When there are questions concerning measurement result : measurement shall be made after 48 ± 2 hours of recovery under the standard condition

Automotive Grade SMD Power Inductor – SDE..A Series



Features

- Carbonyl Powder
- Compact design
- High current, low DCR, high efficiency
- Very low acoustic noise and very low leakage flux noise
- High reliability -Reliability test complied to AEC-Q200
- 100% Lead(Pb) & Halogen-Free and RoHS compliant

Applications

- Note PC Power System · incl. IMVP-6
- DC/DC Converter

Characteristics except 1770

- Saturation Current (Isat) will cause L0 to drop approximately 30%
- Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40°C
- All test data is referred to 25°C ambient
- The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Operating temperature range: -40~125°C(Including self - temperature rise)
- Storage Temperature: <40°C; Humidity 60%RH

Characteristics for 1770

- Saturation Current (Isat 1) will cause L0 to drop approximately 20%
- Saturation Current (Isat 2) will cause L0 to drop approximately 30%
- Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40°C
- All test data is referred to 25°C ambient
- The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Operating temperature range: -40~125°C(Including self - temperature rise)
- Storage Temperature: <40°C; Humidity 60%RH

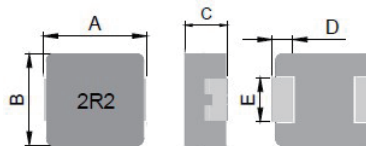
Inductance and rated current ranges

– SDE0420HP	1.0~10 μ H	8.5~2.3A
– SDE0530HP	1.0~10 μ H	12.0~4.0A
– SDE0630H	1.0~22 μ H	22.0~3.5A
– SDE0650H	1.0~22 μ H	20.0~5.5A
– SDE1040H	1.0~47 μ H	36.0~4.5A
– SDE1050H	1.0~47 μ H	30.0~6.5A
– SDE1265HP	1.0~47 μ H	48.0~9.5A
– SDE1770HP	1.0~47 μ H	60.0~9.5A

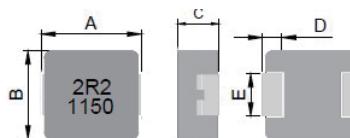
– Test equipment:

- L: HP4284A LCR meter
- DCR: Milli-ohm meter

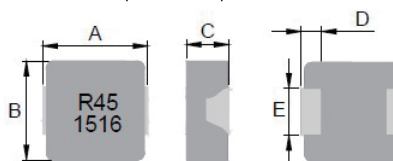
SDE0420



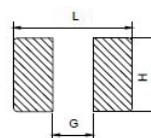
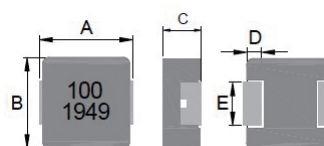
SDE0530 / 0630 / 0650 / 1040(2R2~470)
SDE1050(2R2~470)
SDE1265(1R8~470)



SDE1040(1R0~1R5) / 1050(1R0~1R5)
SDE1265(1R0~1R5)



SDE1770



Note 1 (SDE0420 / 0530)

- 1.The above PCB layout reference only.
- 2.Recommended solder paste thickness at 0.12mm and above.

Note 2 (SDE0630 / 0650 / 1040 / 1050 / 1265)

- 1.The above PCB layout reference only.
- 2.Recommended solder paste thickness at 0.15mm and above.

Note 3 (SDE1770)

- 1.The above PCB layout reference only.
- 2.Recommended solder paste thickness at 0.17mm and above.

Dimensions

Unit: mm

Type	A	B	C	D	E	L	G	H
SDE0420HP	4.45±0.25	4.06±0.25	1.80±0.20	0.76±0.30	2.00±0.20	5.20	2.20	2.40
SDE0530HP	5.70±0.30	5.20±0.20	2.80±0.20	1.10±0.30	2.50±0.30	6.50	2.50	2.80
SDE0630H	7.30±0.30	6.60±0.30	2.80±0.20	1.80±0.30	3.00±0.30	8.40	2.50	3.50
SDE0650H	7.30±0.30	6.60±0.30	4.80±0.20	1.80±0.30	3.00±0.30	8.40	2.50	3.50
SDE1040H	11.00±0.50	10.00±0.30	3.80±0.20	2.30±0.30	3.00±0.30	13.60	5.40	3.50
SDE1050H	11.00±0.50	10.00±0.30	4.80±0.20	2.30±0.30	3.00±0.30	13.60	5.40	3.50
SDE1265HP	13.50±0.50	12.50±0.30	6.20±0.30	2.30±0.30	4.70±0.30	14.20	8.00	5.00
SDE1770HP	17.60±0.50	16.90±0.30	6.70±0.30	2.10±0.30	11.90±0.30	18.50	12.20	12.50

Product Identification

SDE	0420HP	M	T	1R0	A
Product Type	Dimensions (BxC)	Inductor Tolerance	Packaging Style	Inductance	Function Code
	0420HP: 4.06×1.80 0530HP: 5.20×2.80 0630H: 6.60×2.80 0650H: 6.60×4.80 1040H: 10.00×3.80 1050H: 10.00×4.80 1265HP: 12.50×6.20 1770HP: 16.90×6.70	M: ±20%	T: Tape and Reel	1R0: 1.0μH 100: 10μH	A: Automotive Grade

Electrical Characteristics

SDE0420HP Type

Part No.	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE0420HPMT1R0A	1.0	±20%	100KHz, 1V	22.00	27.0	8.5	5.0
SDE0420HPMT1R2A	1.2	±20%	100KHz, 1V	25.00	30.0	7.8	4.8
SDE0420HPMT1R5A	1.5	±20%	100KHz, 1V	34.80	42.0	7.0	4.5
SDE0420HPMT2R2A	2.2	±20%	100KHz, 1V	51.00	61.0	6.0	4.0
SDE0420HPMT3R3A	3.3	±20%	100KHz, 1V	69.00	76.0	4.0	3.5
SDE0420HPMT4R7A	4.7	±20%	100KHz, 1V	95.00	105.0	3.5	2.6
SDE0420HPMT5R6A	5.6	±20%	100KHz, 1V	112.00	125.0	3.0	2.2
SDE0420HPMT6R8A	6.8	±20%	100KHz, 1V	150.00	172.0	2.8	2.1
SDE0420HPMT8R2A	8.2	±20%	100KHz, 1V	158.00	180.0	2.5	2.0
SDE0420HPMT100A	10	±20%	100KHz, 1V	215.00	243.0	2.3	1.8

SDE0530HP Type

Part No.	Inductance (μH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE0530HPMT1R0A	1.0	±20%	100KHz, 1V	12.6	13.7	12.0	8.8
SDE0530HPMT1R2A	1.2	±20%	100KHz, 1V	13.0	17.0	11.5	8.0
SDE0530HPMT1R5A	1.5	±20%	100KHz, 1V	16.0	20.7	11.0	7.2
SDE0530HPMT2R2A	2.2	±20%	100KHz, 1V	25.0	29.2	10.0	5.8
SDE0530HPMT3R3A	3.3	±20%	100KHz, 1V	32.0	38.0	8.5	5.0
SDE0530HPMT4R7A	4.7	±20%	100KHz, 1V	50.0	53.0	8.0	4.6
SDE0530HPMT5R6A	5.6	±20%	100KHz, 1V	55.0	63.0	7.0	4.3
SDE0530HPMT6R8A	6.8	±20%	100KHz, 1V	68.0	76.2	6.0	4.0
SDE0530HPMT100A	10	±20%	100KHz, 1V	112.0	130.0	4.0	2.8

Viking is capable to design according to customer special requirement.

Electrical Characteristics

SDE0630H Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE0630HMT1R0A	1.0	±20%	100KHz, 1V	8.3	10.0	22.0	11.0
SDE0630HMT1R2A	1.2	±20%	100KHz, 1V	10.0	12.0	20.0	10.0
SDE0630HMT1R5A	1.5	±20%	100KHz, 1V	13.0	15.0	18.0	9.0
SDE0630HMT1R8A	1.8	±20%	100KHz, 1V	14.0	17.0	16.0	8.5
SDE0630HMT2R2A	2.2	±20%	100KHz, 1V	18.0	20.0	14.0	8.0
SDE0630HMT3R3A	3.3	±20%	100KHz, 1V	28.0	30.0	13.5	6.0
SDE0630HMT4R7A	4.7	±20%	100KHz, 1V	37.0	40.0	10.0	5.5
SDE0630HMT5R6A	5.6	±20%	100KHz, 1V	43.0	48.0	9.0	5.0
SDE0630HMT6R8A	6.8	±20%	100KHz, 1V	54.0	60.0	8.0	4.5
SDE0630HMT8R2A	8.2	±20%	100KHz, 1V	64.0	68.0	7.5	4.0
SDE0630HMT100A	10	±20%	100KHz, 1V	75.0	85.0	6.0	3.5
SDE0630HMT120A	12	±20%	100KHz, 1V	81.0	93.0	5.5	3.3
SDE0630HMT220A	22	±20%	100KHz, 1V	165.0	190.0	3.5	2.0

SDE0650H Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE0650HMT1R0A	1.0	±20%	100KHz, 1V	6.1	6.5	20.0	15.0
SDE0650HMT1R2A	1.2	±20%	100KHz, 1V	6.7	7.5	18.0	14.0
SDE0650HMT1R5A	1.5	±20%	100KHz, 1V	8.6	9.0	16.5	12.0
SDE0650HMT1R8A	1.8	±20%	100KHz, 1V	9.5	11.0	15.0	12.0
SDE0650HMT2R2A	2.2	±20%	100KHz, 1V	11.2	12.0	14.0	10.0
SDE0650HMT3R3A	3.3	±20%	100KHz, 1V	19.0	20.9	12.0	8.0
SDE0650HMT4R7A	4.7	±20%	100KHz, 1V	28.0	30.8	10.0	6.5
SDE0650HMT5R6A	5.6	±20%	100KHz, 1V	43.5	49.0	9.0	6.0
SDE0650HMT6R8A	6.8	±20%	100KHz, 1V	46.0	51.5	8.5	5.5
SDE0650HMT8R2A	8.2	±20%	100KHz, 1V	56.0	63.0	8.0	5.0
SDE0650HMT100A	10	±20%	100KHz, 1V	60.0	69.0	7.5	4.0
SDE0650HMT150A	15	±20%	100KHz, 1V	81.0	92.0	6.0	3.5
SDE0650HMT220A	22	±20%	100KHz, 1V	140.0	170.0	5.5	2.5

SDE1040H Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE1040HMT1R0A	1.0	±20%	100KHz, 1V	3.00	3.30	36.00	18.00
SDE1040HMT1R2A	1.2	±20%	100KHz, 1V	3.30	3.80	33.00	17.00
SDE1040HMT1R5A	1.5	±20%	100KHz, 1V	4.00	4.60	33.00	16.00
SDE1040HMT2R2A	2.2	±20%	100KHz, 1V	6.50	7.00	27.00	12.00
SDE1040HMT3R3A	3.3	±20%	100KHz, 1V	10.80	11.80	20.00	11.00
SDE1040HMT4R7A	4.7	±20%	100KHz, 1V	15.00	15.50	17.00	10.00
SDE1040HMT5R6A	5.6	±20%	100KHz, 1V	17.00	19.30	14.00	9.00
SDE1040HMT6R8A	6.8	±20%	100KHz, 1V	17.50	23.30	13.50	8.50
SDE1040HMT8R2A	8.2	±20%	100KHz, 1V	20.00	22.50	12.50	8.00
SDE1040HMT100A	10	±20%	100KHz, 1V	27.00	30.00	12.00	7.50
SDE1040HMT150A	15	±20%	100KHz, 1V	40.00	45.00	10.00	6.25
SDE1040HMT220A	22	±20%	100KHz, 1V	64.00	74.00	7.00	5.00
SDE1040HMT330A	33	±20%	100KHz, 1V	92.00	112.00	5.00	3.50
SDE1040HMT470A	47	±20%	100KHz, 1V	145.00	167.00	4.50	3.00

■Viking is capable to design according to customer special requirement.

Electrical Characteristics

SDE1050H Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE1050HMT1R0A	1.0	±20%	100KHz, 1V	2.8	3.5	30.0	22.0
SDE1050HMT1R2A	1.2	±20%	100KHz, 1V	2.9	3.5	28.0	20.0
SDE1050HMT1R5A	1.5	±20%	100KHz, 1V	3.5	4.1	27.0	19.0
SDE1050HMT2R2A	2.2	±20%	100KHz, 1V	5.4	6.0	24.0	16.0
SDE1050HMT3R3A	3.3	±20%	100KHz, 1V	9.0	10.4	22.0	14.0
SDE1050HMT8R2A	8.2	±20%	100KHz, 1V	18.5	24.0	14.5	9.0
SDE1050HMT100A	10	±20%	100KHz, 1V	25.0	29.0	13.5	8.0
SDE1050HMT150A	15	±20%	100KHz, 1V	37.0	45.0	9.5	5.5
SDE1050HMT220A	22	±20%	100KHz, 1V	50.0	60.0	9.0	5.0
SDE1050HMT330A	33	±20%	100KHz, 1V	80.0	92.0	7.5	4.3
SDE1050HMT470A	47	±20%	100KHz, 1V	125.0	145.0	6.5	3.8

SDE1265HP Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat (A) Typ.	Irms (A) Typ.
				Typ.	Max.		
SDE1265HPMT1R0A	1.0	±20%	100KHz, 1V	1.7	2.3	48.0	30.0
SDE1265HPMT1R5A	1.5	±20%	100KHz, 1V	2.5	3.0	45.0	27.0
SDE1265HPMT1R8A	1.8	±20%	100KHz, 1V	3.6	4.0	40.0	24.0
SDE1265HPMT2R2A	2.2	±20%	100KHz, 1V	3.8	4.2	37.0	22.0
SDE1265HPMT3R3A	3.3	±20%	100KHz, 1V	5.7	6.8	30.0	18.0
SDE1265HPMT4R7A	4.7	±20%	100KHz, 1V	7.0	8.4	28.0	13.5
SDE1265HPMT5R6A	5.6	±20%	100KHz, 1V	8.5	10.0	23.0	12.5
SDE1265HPMT6R8A	6.8	±20%	100KHz, 1V	9.5	11.5	18.0	11.5
SDE1265HPMT8R2A	8.2	±20%	100KHz, 1V	12.0	15.5	16.0	10.5
SDE1265HPMT100A	10	±20%	100KHz, 1V	13.2	16.5	15.5	10.0
SDE1265HPMT120A	12	±20%	100KHz, 1V	16.0	20.0	14.0	9.5
SDE1265HPMT150A	15	±20%	100KHz, 1V	23.2	28.0	12.5	9.0
SDE1265HPMT220A	22	±20%	100KHz, 1V	32.5	37.0	12.0	9.0
SDE1265HPMT330A	33	±20%	100KHz, 1V	48.0	58.0	11.0	8.0
SDE1265HPMT470A	47	±20%	100KHz, 1V	76.0	90.0	9.5	6.5

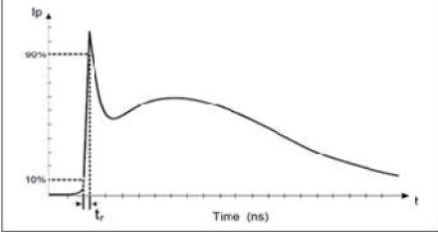
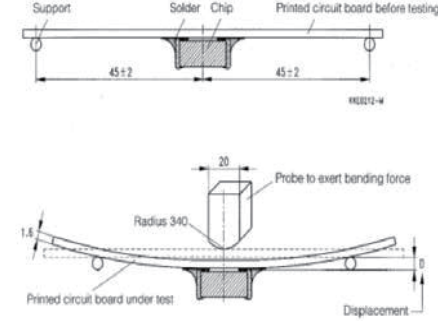
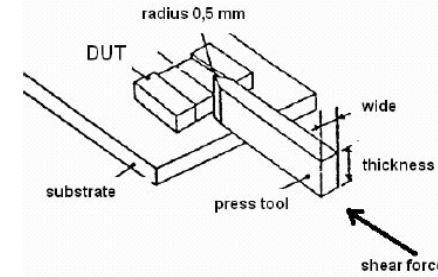
SDE1770HP Type

Part No.	Inductance (uH)	Tolerance	Test Condition	DCR (mΩ)		Isat 1 (A) Typ.	Isat 2 (A) Typ.	Irms (A) Typ.
				Typ.	Max.			
SDE1770HPMT1R0A	1.0	±20%	100KHz, 1V	1.60	2.00	60.0	70.0	52.0
SDE1770HPMT1R5A	1.5	±20%	100KHz, 1V	2.00	2.50	52.0	65.0	47.0
SDE1770HPMT2R2A	2.2	±20%	100KHz, 1V	2.40	2.70	47.0	62.0	43.5
SDE1770HPMT3R3A	3.3	±20%	100KHz, 1V	3.50	3.90	45.0	54.0	28.0
SDE1770HPMT4R7A	4.7	±20%	100KHz, 1V	4.80	5.50	41.0	50.0	25.0
SDE1770HPMT5R6A	5.6	±20%	100KHz, 1V	5.80	7.05	40.0	45.0	21.0
SDE1770HPMT6R8A	6.8	±20%	100KHz, 1V	8.40	9.20	32.0	39.0	19.0
SDE1770HPMT8R2A	8.2	±20%	100KHz, 1V	9.60	10.80	25.0	31.0	18.0
SDE1770HPMT100A	10	±20%	100KHz, 1V	11.80	13.00	24.0	29.0	16.5
SDE1770HPMT150A	15	±20%	100KHz, 1V	17.80	20.50	23.0	27.0	12.5
SDE1770HPMT220A	22	±20%	100KHz, 1V	25.10	26.50	18.0	23.0	12.0
SDE1770HPMT330A	33	±20%	100KHz, 1V	38.00	44.00	15.0	20.0	10.7
SDE1770HPMT470A	47	±20%	100KHz, 1V	48.00	55.00	9.5	16.0	8.7

■ Viking is capable to design according to customer special requirement.

Environmental Characteristics

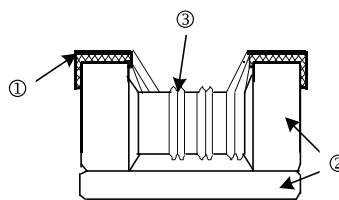
Item	Requirement	Test Method															
High temperature exposure (storage)	Appearance : No damage. Inductance : within±10% of initial value RDC: within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Temperature : 125±2°C (Inductor) Duration : 1000hrs Min. Measurement at 24±4 hours after test conclusion															
Temperature cycling		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Condition for 1 cycle Step1 : -55±2°C 30min Min.(Inductor) Step2 : 125±2°C transition time 1min MAX. Step3 : 125±2°C 30min Min. Step4 : Low temp. transition time 1min MAX. Number of cycles : 1000 Measured at room temperature after placing for 24±2 hrs															
Moisture Resistance		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles 1. Baked at 50°C for 25hrs, measured at room temperature after placing for 4 hrs. 2. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs. 3. Raise temperature to 65±2°C 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs, keep at 25°C for 2hrs then keep at -10°C for 3hrs 4. Keep at 25°C 80-100%RH for 15min and vibrate at the frequency of 10 to 55 Hz to 10 Hz, measure at room temperature after placing for 1~2 hrs.															
Biased Humidity		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Humidity : 85±3% R.H, Temperature : 85±2°C Duration : 1000hrs Min with 100% rated current. Measured at room temperature after placing for 24±2hrs															
High Temperature Operational Life		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Temperature : 125±2°C (Inductor) Duration : 1000hrs Min. with 100% rated current. Measured at room temperature after placing for 24±2hrs															
External Visual	Appearance : No damage	Inspect device construction, marking and workmanship. Electrical Test not required.															
Physical Dimension	According to the product specification size measurement	According to the product specification size measurement															
Resistance to Solvents	Appearance : No damage	Add aqueous wash chemical - OKEM clean or equivalent															
Mechanical Shock	Appearance : No damage. Inductance : within±10% of initial value RDC: within ±15% of initial value and shall not exceed the specification value	<table border="1"> <thead> <tr> <th>Type</th> <th>Peak value (g's)</th> <th>Normal duration (D) (ms)</th> <th>Wave form</th> <th>Velocity change (Vi)ft/sec</th> </tr> </thead> <tbody> <tr> <td>SDM</td> <td>100</td> <td>6</td> <td>Half-sine</td> <td>12.3</td> </tr> <tr> <td>Lead</td> <td>100</td> <td>6</td> <td>Half-sine</td> <td>12.3</td> </tr> </tbody> </table>	Type	Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)ft/sec	SDM	100	6	Half-sine	12.3	Lead	100	6	Half-sine	12.3
Type		Peak value (g's)	Normal duration (D) (ms)	Wave form	Velocity change (Vi)ft/sec												
SDM		100	6	Half-sine	12.3												
Lead	100	6	Half-sine	12.3													
Vibration	shocks in each direction along 3 perpendicular axes IPC/JEDEC J-STD-020D Classification Reflow Profiles Oscillation Frequency: 10~2K~10Hz for 20 minute Equipment : Vibration checker Total Amplitude: 1.52mm±10% Testing Time : 12 hours(20 minutes, 12 cycles each of 3 orientations)																
Resistance to soldering Heat	Test condition:	<table border="1"> <thead> <tr> <th>Temperature</th> <th>Time</th> <th>Temperature ramp/immersion and emersion rate</th> <th>Number of heat cycles</th> </tr> </thead> <tbody> <tr> <td>260±5°C (solder)</td> <td>10±1s</td> <td>25mm/s±6mm/s</td> <td>1</td> </tr> </tbody> </table>	Temperature	Time	Temperature ramp/immersion and emersion rate	Number of heat cycles	260±5°C (solder)	10±1s	25mm/s±6mm/s	1							
Temperature	Time	Temperature ramp/immersion and emersion rate	Number of heat cycles														
260±5°C (solder)	10±1s	25mm/s±6mm/s	1														
Thermal shock		Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Condition for 1 cycle Step1 : -55±2°C 15±1min(Inductor) Step2 : 125±2°C within 20Sec. Step3 : 125±2°C 15±1min Number of cycles : 300 Measured at room temperature after placing fo 24±2hrs															

Item	Requirement	Test Method
ESD	Appearance : No damage	
Solderability	More than 95% of the terminal electrode should be covered with solder	Steam Aging: 8 hours ± 15 min Preheat: 150°C, 60sec. Solder: Sn96.5% Ag3% Cu0. 5% Temperature: 245±5°C Flux for lead free: Rosin. 9.5% Dip time: 4±1sec. Depth: completely cover the termination
Electrical Characterization	Refer Specification for Approval	Summary to show Min, Max, Mean and Standard deviation
Flammability	Electrical Test not required	V-0 or V-1 are acceptable
Board Flex	Appearance : No damage	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles Place the 100mm X 40mm board into a fixture similar to the one shown in below Figure with the component facing down. The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum. The duration of the applied forces shall be 60 (+ 5) sec. The force is to be applied only once to the board 
Terminal Strength(SMD)	Appearance : No damage	Preconditioning: Run through IR reflow for 2 times. IPC/JEDEC J-STD-020D Classification Reflow Profiles With the component mounted on a PCB with the device to be tested, apply a 17.7 N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested 

Note : When there are questions concerning measurement result : measurement shall be made after 48 ± 2 hours of recovery under the standard condition

Automotive Grade Wire Wound Common Mode Filter – CFH..A Series

Construction



① Terminal	② Ferrite	③ Enameled Copper Wire
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Features

- High common mode impedance at high frequency effects excellent noise suppression performance
- Small sizes and low profile
- 100% Lead(Pb) & Halogen-Free and RoHS compliant
- AEC-Q200 Compliance

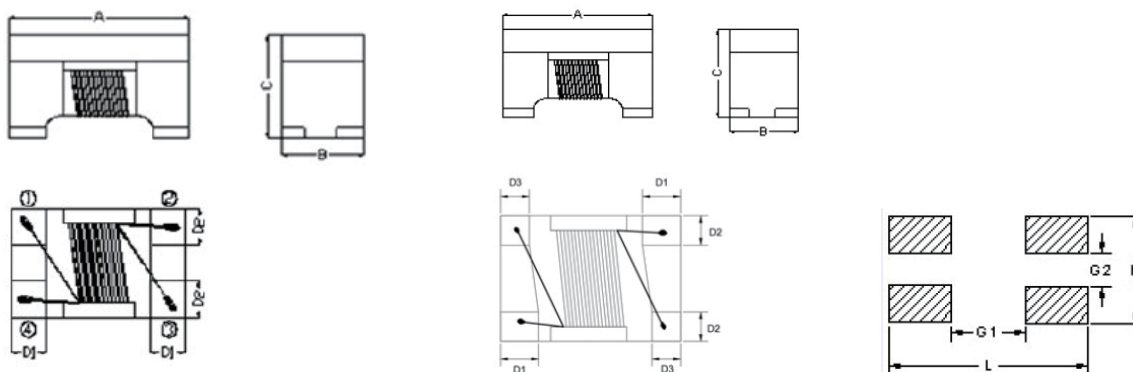
Applications

- DSI / BST / CAN-Bus / Flex-Ray

Part Numbering

CF	H	10	O	T	110	A	-1
Product Type	Shielding Type	Dimensions	Inductance Tolerance	Packaging Code	Inductance	Function Code	Internal Code
	H: Shielding	10: 1210 12: 1812	O: +50/-30%	T: Taping Reel	110: 11uH 220: 22uH 510: 51uH 101: 100uH	A: Automotive Grade	

Dimensions



1210

1812

Unit : mm

Type	Size (Inch)	A	B	C	D1	D2	D3	L	H	G1	G2
CFH10	1210	3.3±0.2	2.5±0.2	2.5 max	0.55±0.15	0.75±0.2	—	3.7	2.8	2.4	1.2
CFH12	1812	4.5±0.2	3.2±0.2	2.8±0.2	0.75±0.2	0.85±0.2	0.60±0.2	5.0	3.6	3.4	1.7

Standard Electrical Specifications

CFH10 / Standard Type

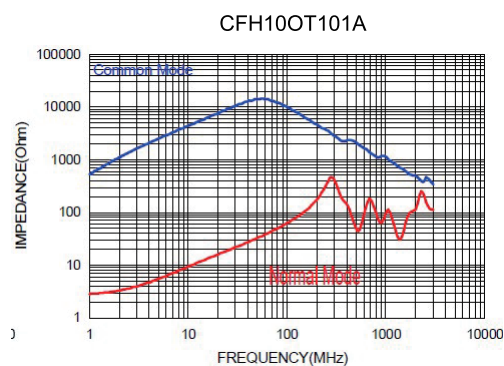
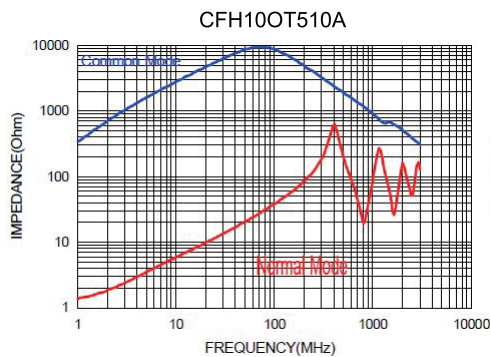
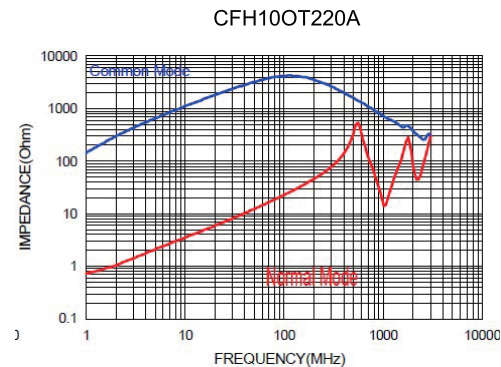
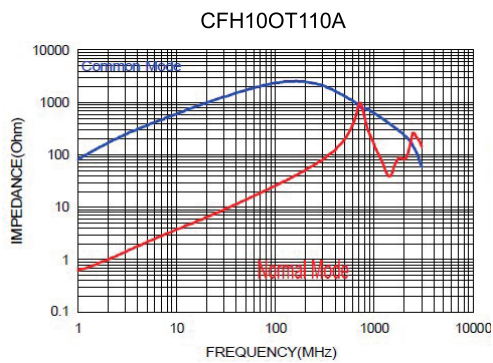
Part No.	Impedance(Ω) @10MHz		Inductance(μ H) @100KHz, 0.1V	Inductance Tolerance	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V) typ.	Insulation Resistance (M Ω) min.
	min.	typ.						
CFH10OT110A	300	550	11	+50/-30%	0.4	300	80	10
CFH10OT220A	500	1100	22	+50/-30%	0.5	250	80	10
CFH10OT510A	1000	2600	51	+50/-30%	0.7	200	80	10
CFH10OT101A	2200	5100	100	+50/-30%	1.5	150	80	10

CFH12 / Standard Type

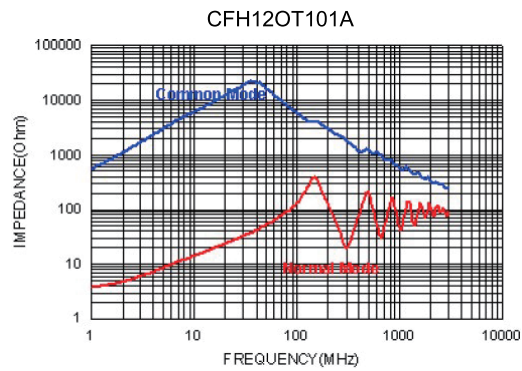
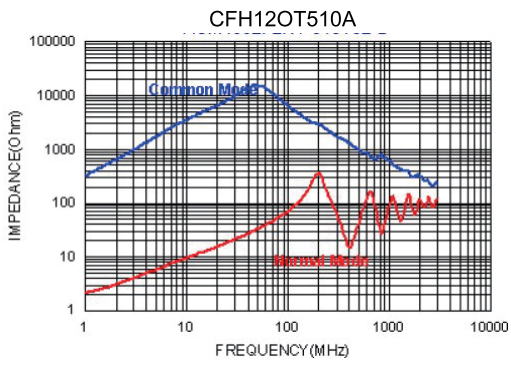
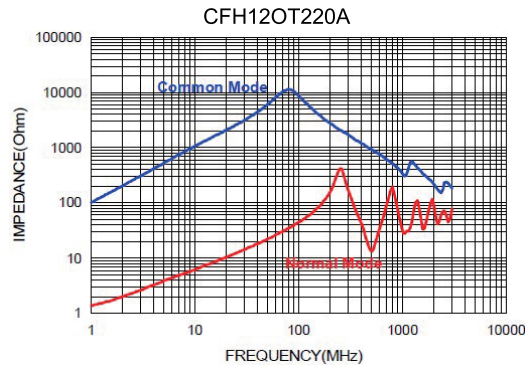
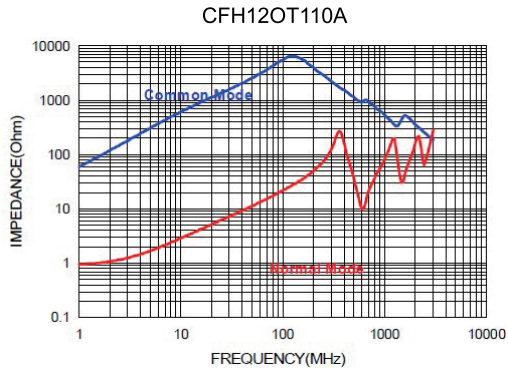
Part No.	Impedance(Ω) @10MHz		Inductance(μ H) @100KHz, 0.1V	Inductance Tolerance	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V) typ.	Insulation Resistance (M Ω) min.
	min.	typ.						
CFH12OT110A	300	600	11	+50/-30%	0.6	360	50	10
CFH12OT220A	500	1200	22	+50/-30%	1.0	310	50	10
CFH12OT510A	1000	2800	51	+50/-30%	1.0	230	50	10
CFH12OT101A	2000	5800	100	+50/-30%	2.0	200	50	10

■ Viking is capable to design according to customer special requirement.

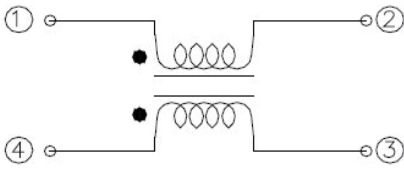
Characteristics (Impedance vs. Frequency)-CFH10



Characteristics (Impedance vs. Frequency)-CFH12

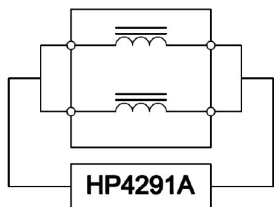


Schematic Diagram

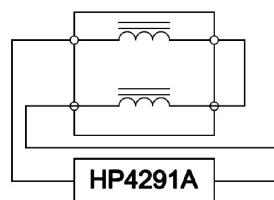


Measuring Circuits 2Line

Common mode



Differential mode

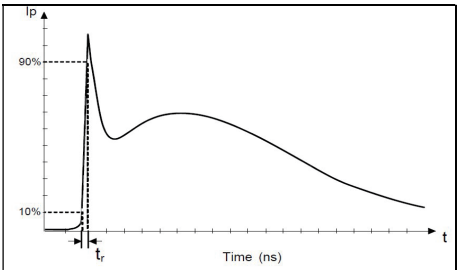


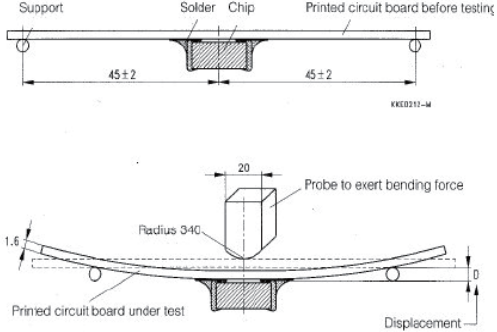
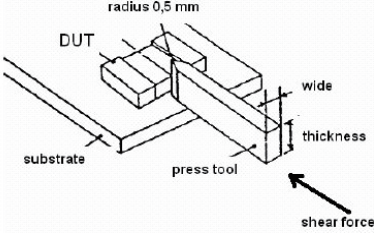
Environmental Characteristics

Electrical Performance Test

Items	Requirement	Test Methods
Impedance	Refer to standard electrical characteristic spec. Component should not be damaged	LCR Meter HP 4291A+16197A
DC Resistance DCR		Agilent-4338B
Insulation Resistance (I.R)		Agilent-4339
Temperature Rise Test	Rated current<1A $\Delta T_{20^{\circ}\text{C}}$ max Rated current>1A $\Delta T_{40^{\circ}\text{C}}$ max	Applied the allowed DC current Temperature measured by digital surface thermometer

Mechanical Performance Test

Items	Requirement	Test Methods
High Temperature Exposure	Appearance: No damage Impedance: Within $\pm 15\%$ of initial value Inductance: Within $\pm 10\%$ of initial value RDC: Within $\pm 15\%$ of initial value and Shall not exceed the specification value	at +150°C for 1000 hrs Measured at room temperature after placing for 24 ± 2 hrs
Temperature Cycling		-55°C to +125°C, 1000 hrs Measured at room temperature after placing for 24 ± 2 hrs
Biased Humidity		1000 hrs 85°C/85%RH 100% rated current Measured at room temperature after placing for 24 ± 2 hrs
Operational Life		at +150°C for 1000 hrs with 100% rated current Measured at room temperature after placing for 24 ± 2 hrs
Resistance to Solvents		Appearance: No damage Add aqueous wash chemical - OKEM clean or equivalent
Mechanical Shock	Appearance: No damage Impedance: Within $\pm 15\%$ of initial value Inductance: Within $\pm 10\%$ of initial value RDC: Within $\pm 15\%$ of initial value and Shall not exceed the specification value	Wave form: sine shock Peak value is 100g's. Normal duration (D) is 6ms shocks in each direction along 3 perpendicular axes.
Vibration		Oscillation Frequency: 10~2K~10Hz for 20 minute Equipment : Vibration checker Total Amplitude:1.52mm $\pm 10\%$ Testing Time : 12 hours(20 minutes, 12 cycles each of 3 orientations)
Resistance to Soldering Heat		260 $\pm 5^{\circ}\text{C}$ for 10 ± 1 seconds
Thermal shock		-55°C to +150°C, 300 cycles Measured at room temperature after placing for 24 ± 2 hrs
ESD		Appearance: No damage 
Solderability	95% min. coverage Steam Aging: 8 hours \pm 15 min, Preheat: 150°C,60sec. Solder: Sn96.5% Ag3% Cu0. 5%, Temperature: 245 $\pm 5^{\circ}\text{C}$ Flux for lead free: Rosin. 9.5%, Dip time: 4 ± 1 sec. Depth: completely cover the termination	
Flammability	Electrical Test not required V-0 or V-1 are acceptable	

Items	Requirement	Test Methods
Board Flex	Appearance : No damage	<p>Place the 100mm X 40mm board into a fixture similar to the one shown in below Figure with the component facing down.</p> <p>The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum. The duration of the applied forces shall be 60 (+ 5) sec. The force is to be applied only once to the board</p> 
Terminal Strength(SMD)	Appearance : No damage	<p>With the component mounted on a PCB with the device to be tested, apply a 17.7 N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested</p> 

■ Operating Temperature Range: -55~150°C(Including self - temperature rise)

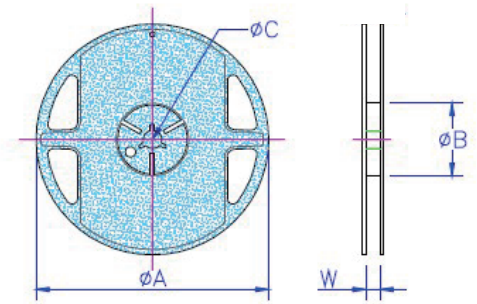
■ Storage Temperature: <40°C; Humidity 60%RH

Packaging

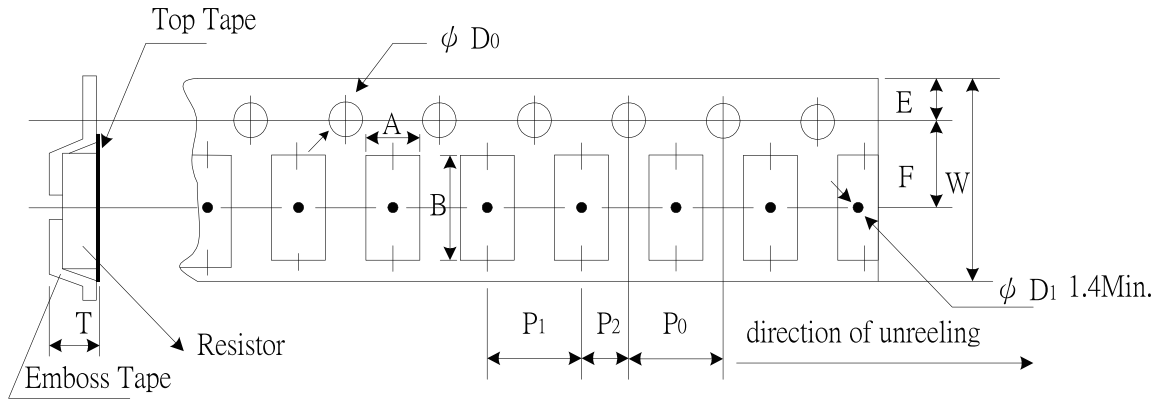
Packaging Quantity & Reel Specifications

Unit: mm

Type	ΦA	ΦB	ΦC	W	Quantity (EA)
CFH10	178±2.0	60±2.0	13.5±0.5	9±0.5	2000
CFH12	178±2.0	60±2.0	13.5±0.5	9±0.5	500



Embossed Plastic Tape Specifications

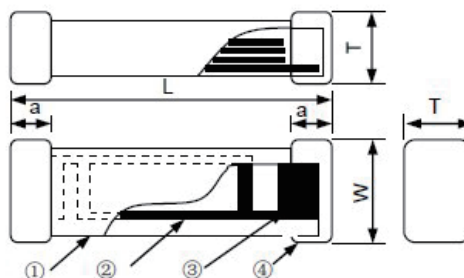
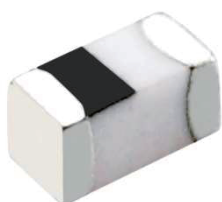


Unit: mm

Type	A	B	W	E	F	P0	P1	P2	ΦD_0	T
CFH10	2.88±0.10	3.65±0.10	8.0±0.10	1.75±0.10	3.5±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.50±0.10	2.76±0.10
CFH12	3.60±0.10	4.90±0.10	12.0±0.10	1.75±0.10	5.5±0.05	4.00±0.10	8.00±0.10	2.00±0.05	1.50±0.10	3.26±0.10

Automotive Grade Multilayer Chip Inductor – CL-SA Series

Construction



① Ceramic Material	③ Pull Out Electrode
② Internal Electrode	④ End-termination

Features

- Particular ceramic material and coil structure provide high frequency application range up to 10GHz for 0402 · 0603
- Particular ceramic material and coil structure provide high frequency application range up to 20GHz for 0201
- Small size and low profile
- Available in various sizes
- Excellent solderability and heat resistance
- AEC-Q200 Compliance

Dimensions

Unit: mm

Type	Size (Inch)	L	W	T	a
CL01-SA	0201	0.60±0.03	0.30±0.03	0.30±0.03	0.10~0.20
CL02-SA	0402	1.00±0.10	0.50±0.10	0.50±0.10	0.10~0.30
CL03-SA	0603	1.60±0.15	0.80±0.15	0.80±0.15	0.20~0.60

Applications

- RF and Wireless Communication
- Information Technology Equipment Which Includes Computer
- Telecommunications, Rated Detectors, Automotive Electronics, Cellular Phones
- Pagers, Audio Equipment, PDAs, Keyless Remote System and Low-voltage Power Supply Modules.

Part Numbering

CL	02	J	T		1N0	-S	A
Product Type	Dimensions	Inductance Tolerance	Packaging Code	Appearance	Inductance	Special	Function Code
	01: 0201 02: 0402 03: 0603	B: ±0.1nH C: ±0.2nH S: ±0.3nH G: ±2% H: ±3% J: ±5%	T: Taping Reel	: Standard Q: High Q	0N3: 0.3nH 1N0: 1.0nH 10N: 10nH R10: 100nH		A: Automotive Grade

Standard Electrical Specifications

CL02-SA Multilayer Chip Inductors / Standard Type

Inductance (nH)	Tolerance	Quality Factor /min.	L/Q Freq. (MHz)	SRF min. (GHz)	RDC (Ω) max.	IDC (mA) max.
0.3	±0.1nH	8	100	10.00	0.08	1000
0.4	±0.1nH	8	100	10.00	0.08	1000
0.5	±0.1nH	8	100	10.00	0.08	1000
0.6	±0.1nH	8	100	10.00	0.08	1000
0.7	±0.1nH	8	100	10.00	0.08	1000
0.8	±0.1nH	8	100	10.00	0.08	1000
1.0	±0.1, 0.2, 0.3nH	8	100	10.00	0.08	1000
1.1	±0.1, 0.2, 0.3nH	8	100	10.00	0.08	1000
1.2	±0.1, 0.2, 0.3nH	8	100	10.00	0.09	1000
1.3	±0.1, 0.2, 0.3nH	8	100	10.00	0.09	1000
1.5	±0.1, 0.2, 0.3nH	8	100	10.00	0.10	1000
1.6	±0.1, 0.2, 0.3nH	8	100	10.00	0.10	1000
1.8	±0.1, 0.2, 0.3nH	8	100	10.00	0.12	900
2.0	±0.1, 0.2, 0.3nH	8	100	10.00	0.12	900
2.2	±0.1, 0.2, 0.3nH	8	100	10.00	0.13	900
2.4	±0.1, 0.2, 0.3nH	8	100	10.00	0.13	800
2.7	±0.1, 0.2, 0.3nH	8	100	6.00	0.16	800
3.0	±0.1, 0.2, 0.3nH	8	100	6.00	0.16	800
3.3	±0.1, 0.2, 0.3nH	8	100	6.00	0.16	800
3.6	±0.1, 0.2, 0.3nH	8	100	6.00	0.20	700
3.9	±0.1, 0.2, 0.3nH	8	100	6.00	0.20	700
4.3	±0.1, 0.2, 0.3nH	8	100	6.00	0.20	700
4.7	±0.1, 0.2, 0.3nH	8	100	6.00	0.20	700
5.1	±0.1, 0.2, 0.3nH	8	100	5.30	0.23	600
5.6	±0.1, 0.2, 0.3nH	8	100	4.50	0.23	600
6.2	±0.1, 0.2, 0.3nH	8	100	4.50	0.25	600
6.8	±2, 3, 5%	8	100	4.50	0.25	600
7.5	±2, 3, 5%	8	100	4.20	0.28	500
8.2	±2, 3, 5%	8	100	3.70	0.28	500
9.1	±2, 3, 5%	8	100	3.40	0.30	500
10	±2, 3, 5%	8	100	3.40	0.30	500
12	±2, 3, 5%	8	100	3.00	0.45	400
15	±2, 3, 5%	8	100	2.50	0.55	400
18	±2, 3, 5%	8	100	2.20	0.65	300
22	±2, 3, 5%	8	100	1.90	0.70	300
27	±2, 3, 5%	8	100	1.70	0.80	300
33	±2, 3, 5%	8	100	1.60	0.90	200
39	±2, 3, 5%	8	100	1.20	1.00	200
47	±2, 3, 5%	8	100	1.10	1.10	200
56	±2, 3, 5%	8	100	1.00	1.10	200
68	±2, 3, 5%	8	100	0.80	1.20	200
82	±5%	8	100	0.60	1.30	200
100	±5%	8	100	0.60	1.60	200

Operating temperature range: -55~+125°C

Test Instruments Conditions: Agilent E4991A/B RF Impedance Material analyzer or equivalent with fixture 16197A or equivalent

Agilent 4338B Milliohm meter

Test Level: 500mV

Viking is capable to design according to customer special requirement.

■ Standard Electrical Specifications

CL03-SA Multilayer Chip Inductors / Standard Type

Inductance (nH)	Tolerance	Quality Factor /min.	L/Q Freq. (MHz)	SRF min. (GHz)	RDC (Ω) max.	IDC (mA) max.
1.0	±0.3nH	8	100	10.00	0.05	1000
1.2	±0.3nH	8	100	10.00	0.05	1000
1.5	±0.3nH	8	100	10.00	0.10	1000
1.8	±0.3nH	8	100	10.00	0.10	1000
2.2	±0.3nH	8	100	8.00	0.10	1000
2.7	±0.3nH	10	100	7.00	0.13	1000
3.3	±0.3nH	10	100	6.00	0.13	1000
3.9	±0.3nH	10	100	6.00	0.15	1000
4.7	±0.3nH	10	100	5.00	0.20	1000
5.6	±0.3nH	10	100	4.00	0.23	700
6.8	±5%	10	100	4.00	0.25	700
8.2	±5%	10	100	3.50	0.28	600
10	±5%	12	100	3.40	0.30	600
12	±5%	12	100	2.60	0.35	600
15	±5%	12	100	2.30	0.40	600
18	±5%	12	100	2.00	0.45	600
22	±5%	12	100	1.60	0.50	600
27	±5%	12	100	1.40	0.55	600
33	±5%	12	100	1.20	0.60	600
39	±5%	12	100	1.10	0.65	500
47	±5%	12	100	0.90	0.70	500
56	±5%	12	100	0.90	0.75	500
68	±5%	12	100	0.70	0.85	400
82	±5%	12	100	0.60	0.95	300
100	±5%	12	100	0.60	1.00	300
120	±5%	8	50	0.50	1.20	300

■ Operating temperature range: -55~+125°C

■ Test Instruments Conditions: Agilent E4991A/B RF Impedance Material analyzer or equivalent with fixture 16197A or equivalent

Agilent 4338B Milliohm meter

Test Level: 500mV

■ Viking is capable to design according to customer special requirement.

High Q Electrical Specifications

CL01-SA Multilayer Chip Inductors / High Q Type

Inductance (nH)	Tolerance	Quality Factor /min.	L/Q Freq. (MHz)	SRF min. (GHz)	RDC (Ω) max.	IDC (mA) max.
0.6	±0.1, 0.2nH	14	500	20.00	0.07	850
0.7	±0.1, 0.2nH	14	500	20.00	0.08	800
0.8	±0.1, 0.2nH	14	500	18.00	0.08	800
0.9	±0.1, 0.2nH	14	500	18.00	0.10	750
1.0	±0.1, 0.2, 0.3nH	14	500	17.00	0.10	750
1.1	±0.1, 0.2, 0.3nH	14	500	17.00	0.10	750
1.2	±0.1, 0.2, 0.3nH	14	500	17.00	0.10	750
1.3	±0.1, 0.2, 0.3nH	14	500	17.00	0.15	600
1.4	±0.1, 0.2, 0.3nH	14	500	16.00	0.15	600
1.5	±0.1, 0.2, 0.3nH	14	500	15.00	0.15	600
1.6	±0.1, 0.2, 0.3nH	14	500	15.00	0.15	600
1.7	±0.1, 0.2, 0.3nH	14	500	15.00	0.15	600
1.8	±0.1, 0.2, 0.3nH	14	500	15.00	0.15	600
1.9	±0.1, 0.2, 0.3nH	14	500	12.50	0.15	600
2.0	±0.1, 0.2, 0.3nH	14	500	12.50	0.15	600
2.1	±0.1, 0.2, 0.3nH	14	500	11.00	0.15	600
2.2	±0.1, 0.2, 0.3nH	14	500	11.00	0.15	600
2.3	±0.1, 0.2, 0.3nH	14	500	10.00	0.20	500
2.4	±0.1, 0.2, 0.3nH	14	500	10.00	0.20	500
2.5	±0.1, 0.2, 0.3nH	14	500	10.00	0.20	500
2.6	±0.1, 0.2, 0.3nH	14	500	10.00	0.20	500
2.7	±0.1, 0.2, 0.3nH	14	500	10.00	0.20	500
2.8	±0.1, 0.2, 0.3nH	14	500	9.50	0.20	500
2.9	±0.1, 0.2, 0.3nH	14	500	9.50	0.20	500
3.0	±0.1, 0.2, 0.3nH	14	500	9.50	0.25	450
3.1	±0.1, 0.2, 0.3nH	14	500	8.00	0.25	450
3.2	±0.1, 0.2, 0.3nH	14	500	8.00	0.25	450
3.3	±0.1, 0.2, 0.3nH	14	500	8.00	0.25	450
3.4	±0.1, 0.2, 0.3nH	14	500	7.00	0.25	450
3.5	±0.1, 0.2, 0.3nH	14	500	7.00	0.25	450
3.6	±0.1, 0.2, 0.3nH	14	500	6.00	0.30	400
3.7	±0.1, 0.2, 0.3nH	14	500	6.00	0.30	400
3.8	±0.1, 0.2, 0.3nH	14	500	6.00	0.30	400
3.9	±0.1, 0.2, 0.3nH	14	500	5.70	0.30	400
4.0	±0.1, 0.2, 0.3nH	14	500	5.30	0.40	350
4.1	±0.1, 0.2, 0.3nH	14	500	5.30	0.40	350
4.2	±0.1, 0.2, 0.3nH	14	500	5.30	0.40	350
4.3	±0.3nH, ±3, 5%	14	500	5.30	0.40	350
4.7	±0.3nH, ±3, 5%	14	500	4.40	0.40	350
5.1	±0.3nH, ±3, 5%	14	500	4.20	0.40	350
5.6	±0.3nH, ±3, 5%	14	500	4.00	0.40	350
6.2	±3, 5%	14	500	4.00	0.60	300
6.8	±3, 5%	14	500	3.90	0.60	300
7.5	±3, 5%	14	500	3.70	0.60	300
8.2	±3, 5%	14	500	3.60	0.70	250
9.1	±3, 5%	14	500	3.30	0.70	250
10	±3, 5%	14	500	3.20	0.70	250
11	±3, 5%	14	500	2.90	0.80	250
12	±3, 5%	12	500	2.90	0.70	250
13	±3, 5%	12	500	2.60	0.80	250
15	±3, 5%	12	500	2.60	0.70	250
16	±3, 5%	12	500	2.20	0.95	200
18	±3, 5%	12	500	2.20	0.80	200

Operating temperature range: -55~+125°C

Test Instruments Conditions: Agilent E4991A/B RF Impedance Material analyzer or equivalent with fixture 16197A or equivalent

(The residual inductance needs to be compensated : 0.48nH)

Agilent 4338B Milliohm meter

Test Level: 500mV

Viking is capable to design according to customer special requirement.

■ Environmental Characteristics

Item	Requirement	Test Condition												
High Temperature Expose (Storage)	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	at $+125\pm 5^\circ\text{C}$ for 1000 hrs Measurement at 24 hrs after test conclusion												
Temperature Cycle	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	-55°C to $+125^\circ\text{C}$, 1000 cycles Dwell time: 30 min Measurement at 24 hrs after test conclusion												
Biased Humidity	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	1000 hrs $85\pm 2^\circ\text{C}/85\%\text{RH}$, full rated current Measurement at 24 hrs after test conclusion												
Operational Life	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	1000 hrs @ $125\pm 5^\circ\text{C}$, full rated current Measurement at 24 hrs after test conclusion												
Mechanical Shock	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	Condition F: 1500g's / 0.5ms / Half sine												
Vibration Test	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	5g's for 20min, 12cycles each of 3 orientations Test form 10-2000Hz., 12cycles each of 3 orientations												
Solderability	More than 95% of terminal electrode should be Covered with new solder Appearance: No damage	$235\pm 5^\circ\text{C}$ for 5 ± 1 seconds												
Resistance to Soldering Heat	More than 95% of terminal electrode should be Covered with new solder Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	$260\pm 5^\circ\text{C}$ for 10 ± 1 seconds												
Board Flex	Appearance: No damage	Epoxy-PCB(1.6mm) Deflection 2mm(min) 60s minimum holding time												
Terminal Strength	Appearance: No damage	<table border="1"> <thead> <tr> <th>Size</th> <th>Apply Force(F)</th> <th>Test Time</th> </tr> </thead> <tbody> <tr> <td>0201</td> <td>2N</td> <td>10\pm1 sec</td> </tr> <tr> <td>0402</td> <td>5N</td> <td>10\pm1 sec</td> </tr> <tr> <td>0603</td> <td>10N</td> <td>10\pm1 sec</td> </tr> </tbody> </table>	Size	Apply Force(F)	Test Time	0201	2N	10 \pm 1 sec	0402	5N	10 \pm 1 sec	0603	10N	10 \pm 1 sec
Size	Apply Force(F)	Test Time												
0201	2N	10 \pm 1 sec												
0402	5N	10 \pm 1 sec												
0603	10N	10 \pm 1 sec												
ESD	Appearance: No damage Inductance: Within $\pm 10\%$ of initial value Q: Within $\pm 20\%$ of initial value	Classification levels 1C												

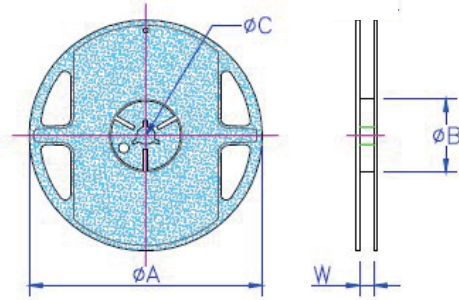
■ Reference Standards: AEC-Q200

■ Storage Temperature: $<40^\circ\text{C}$; Humidity 70%RH

■ Storage Time: 0201, 0402: 6 months max. 0603:12 months max.

■ Packaging

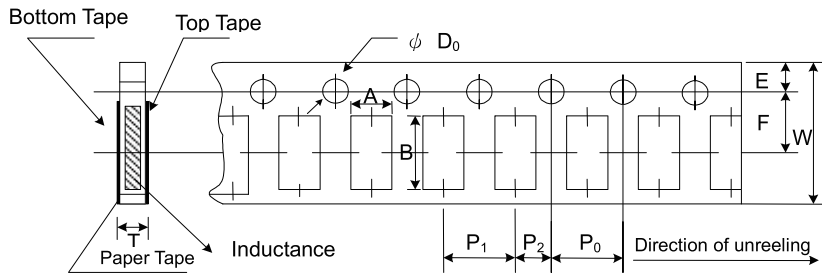
Packaging Quantity & Reel Specifications



Unit: mm

Type	ΦA	ΦB	ΦC	W	Quantity (EA)
CL01-SA	178±2.0	50 or more	13.2±1.0	10.0±1.5	15,000
CL02-SA	178±2.0	50 or more	13.2±1.0	10.0±1.5	10,000
CL03-SA	178±2.0	50 or more	13.2±1.0	10.0±1.5	4,000

Tape Specifications

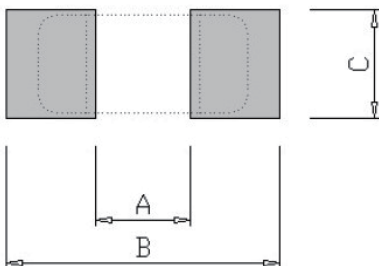


Unit: mm

Type	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD ₀	T
CL01-SA	0.36±0.02	0.66±0.02	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.42±0.02
CL02-SA	0.60±0.03	1.12±0.03	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.60±0.03
CL03-SA	0.98±0.03	1.80±0.05	8.00±0.10	1.75±0.05	3.5±0.05	4.00±0.10	4.00±0.10	2.00±0.05	1.55±0.05	0.95±0.03

■ Recommend Land Pattern

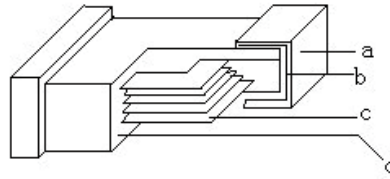
Unit: mm



Type	A	B	C
CL01-SA	0.20-0.30	0.80-0.90	0.20-0.30
CL02-SA	0.40	1.40-1.50	0.50-0.60
CL03-SA	0.70	1.90-2.30	0.60-0.80

Automotive Grade Multilayer Chip Bead – CBF..A Series

Construction

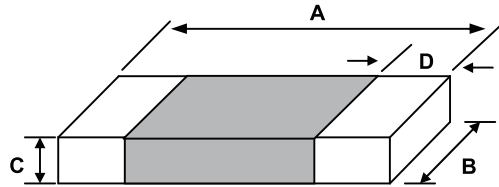


a	Ni/Sn Plating	c	Internal Electrode
b	Ag Layer	d	Ferrite

Features

- Effective EMI protection
- Low DC resistance
- High soldering heat resistance
- Multiple size availability
- AEC-Q200 Compliance

Dimensions



Applications

- Automotive Multimedia, Wireless Connection System and Body Comfort System

Unit: mm

Type	Size (Inch)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (g) (1000pcs)
CBF02	0402	1.0±0.15	0.50±0.15	0.5±0.15	0.25±0.10	2.6
CBF03	0603	1.6±0.20	0.80±0.20	0.8±0.20	0.30±0.20	6.2
CBF05	0805	2.0±0.20	1.20±0.20	0.9±0.20	0.50±0.30	10
CBF04	1204	3.2±0.20	1.60±0.20	0.9±0.20	0.50±0.30	30

Part Numbering

CBF	03	Y	T	U	M	102	A
Product Type	Dimensions	Impedance Tolerance	Packaging Code	Material Code	Current	Impedance	Function Code
	02: 0402 03: 0603 05: 0805 04: 1204	-:See Electrical Specifications Y: ±25%	T: Taping Reel	U: U material	H: Large Current M: Ultra High Current	000: 0Ω 100: 10Ω 101: 100Ω 102: 1000Ω	A: Automotive Grade

Large Current Electrical Specifications

CBF02(100505) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF02-TUH000A	0	0~15Ω	100MHz, 50mV	0.040	800
CBF02-TUH050A	5	0~15Ω	100MHz, 50mV	0.040	800
CBF02-TUH070A	7	0~11Ω	100MHz, 50mV	0.040	800
CBF02-TUH090A	9	5~13Ω	100MHz, 50mV	0.040	800
CBF02-TUH110A	11	7~15Ω	100MHz, 50mV	0.040	800
CBF02-TUH150A	15	9~21Ω	100MHz, 50mV	0.040	800
CBF02-TUH190A	19	12~25Ω	100MHz, 50mV	0.060	700
CBF02YTUH260A	26	±25%	100MHz, 50mV	0.060	700
CBF02YTUH310A	31	±25%	100MHz, 50mV	0.080	700
CBF02YTUH360A	36	±25%	100MHz, 50mV	0.150	600
CBF02YTUH500A	50	±25%	100MHz, 50mV	0.150	600
CBF02YTUH600A	60	±25%	100MHz, 50mV	0.150	600
CBF02YTUH700A	70	±25%	100MHz, 50mV	0.200	450
CBF02YTUH750A	75	±25%	100MHz, 50mV	0.200	450
CBF02YTUH800A	80	±25%	100MHz, 50mV	0.200	450
CBF02YTUH101A	100	±25%	100MHz, 50mV	0.200	450
CBF02YTUH121A	120	±25%	100MHz, 50mV	0.250	450
CBF02YTUH151A	150	±25%	100MHz, 50mV	0.250	450
CBF02YTUH181A	180	±25%	100MHz, 50mV	0.400	300
CBF02YTUH221A	220	±25%	100MHz, 50mV	0.400	300
CBF02YTUH301A	300	±25%	100MHz, 50mV	0.500	300
CBF02YTUH501A	500	±25%	100MHz, 50mV	0.650	200
CBF02YTUH601A	600	±25%	100MHz, 50mV	0.700	200
CBF02YTUH801A	800	±25%	100MHz, 50mV	0.900	200
CBF02YTUH102A	1000	±25%	100MHz, 50mV	1.000	200

CBF03(160808) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF03-TUH000A	0	0~15Ω	100MHz, 50mV	0.080	1000
CBF03-TUH050A	5	0~15Ω	100MHz, 50mV	0.080	1000
CBF03-TUH070A	7	0~11Ω	100MHz, 50mV	0.080	1000
CBF03-TUH090A	9	5~13Ω	100MHz, 50mV	0.080	1000
CBF03-TUH110A	11	7~15Ω	100MHz, 50mV	0.080	1000
CBF03-TUH150A	15	9~21Ω	100MHz, 50mV	0.080	1000
CBF03-TUH190A	19	12~25Ω	100MHz, 50mV	0.080	1000
CBF03YTUH260A	26	±25%	100MHz, 50mV	0.080	1000
CBF03YTUH300A	30	±25%	100MHz, 50mV	0.080	1000
CBF03YTUH310A	31	±25%	100MHz, 50mV	0.080	1000
CBF03YTUH500A	50	±25%	100MHz, 50mV	0.120	1000
CBF03YTUH600A	60	±25%	100MHz, 50mV	0.120	1000
CBF03YTUH700A	70	±25%	100MHz, 50mV	0.150	1000
CBF03YTUH800A	80	±25%	100MHz, 50mV	0.150	1000
CBF03YTUH101A	100	±25%	100MHz, 50mV	0.150	1000
CBF03YTUH121A	120	±25%	100MHz, 50mV	0.150	1000
CBF03YTUH151A	150	±25%	100MHz, 50mV	0.200	1000
CBF03YTUH181A	180	±25%	100MHz, 50mV	0.200	1000
CBF03YTUH221A	220	±25%	100MHz, 50mV	0.200	1000
CBF03YTUH301A	300	±25%	100MHz, 50mV	0.250	1000
CBF03YTUH501A	500	±25%	100MHz, 50mV	0.300	1000
CBF03YTUH601A	600	±25%	100MHz, 50mV	0.300	1000
CBF03YTUH801A	800	±25%	100MHz, 50mV	0.550	500
CBF03YTUH102A	1000	±25%	100MHz, 50mV	0.550	500

CBF05(201209) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF05-TUH000A	0	0~15Ω	100MHz, 50mV	0.030	3000
CBF05-TUH050A	5	0~15Ω	100MHz, 50mV	0.030	3000
CBF05-TUH070A	7	0~11Ω	100MHz, 50mV	0.030	3000
CBF05-TUH090A	9	5~13Ω	100MHz, 50mV	0.030	3000
CBF05-TUH110A	11	7~15Ω	100MHz, 50mV	0.030	3000
CBF05-TUH150A	15	9~21Ω	100MHz, 50mV	0.030	3000
CBF05-TUH190A	19	12~25Ω	100MHz, 50mV	0.030	3000
CBF05YTUH300A	30	±25%	100MHz, 50mV	0.050	3000
CBF05YTUH310A	31	±25%	100MHz, 50mV	0.050	3000
CBF05YTUH360A	36	±25%	100MHz, 50mV	0.060	3000
CBF05YTUH600A	60	±25%	100MHz, 50mV	0.060	3000
CBF05YTUH700A	70	±25%	100MHz, 50mV	0.080	2500
CBF05YTUH800A	80	±25%	100MHz, 50mV	0.080	2500
CBF05YTUH101A	100	±25%	100MHz, 50mV	0.100	2500
CBF05YTUH121A	120	±25%	100MHz, 50mV	0.100	2000
CBF05YTUH151A	150	±25%	100MHz, 50mV	0.100	2000
CBF05YTUH181A	180	±25%	100MHz, 50mV	0.150	2000
CBF05YTUH201A	200	±25%	100MHz, 50mV	0.150	2000
CBF05YTUH221A	220	±25%	100MHz, 50mV	0.150	2000
CBF05YTUH301A	300	±25%	100MHz, 50mV	0.200	2000
CBF05YTUH501A	500	±25%	100MHz, 50mV	0.250	1500
CBF05YTUH601A	600	±25%	100MHz, 50mV	0.250	1500
CBF05YTUH801A	800	±25%	100MHz, 50mV	0.300	800
CBF05YTUH102A	1000	±25%	100MHz, 50mV	0.300	800
CBF05YTUH122A	1200	±25%	100MHz, 50mV	0.450	500
CBF05YTUH152A	1500	±25%	100MHz, 50mV	0.500	300

CBF04(321609) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF04-TUH000A	0	0~15Ω	100MHz, 50mV	0.040	4000
CBF04-TUH050A	5	0~15Ω	100MHz, 50mV	0.040	4000
CBF04-TUH070A	7	0~11Ω	100MHz, 50mV	0.040	4000
CBF04-TUH090A	9	5~13Ω	100MHz, 50mV	0.050	4000
CBF04-TUH110A	11	7~15Ω	100MHz, 50mV	0.050	4000
CBF04-TUH150A	15	9~21Ω	100MHz, 50mV	0.050	3000
CBF04-TUH190A	19	12~25Ω	100MHz, 50mV	0.050	3000
CBF04YTUH260A	26	±25%	100MHz, 50mV	0.050	3000
CBF04YTUH280A	28	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH300A	30	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH310A	31	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH500A	50	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH600A	60	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH700A	70	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH800A	80	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH101A	100	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH121A	120	±25%	100MHz, 50mV	0.070	3000
CBF04YTUH151A	150	±25%	100MHz, 50mV	0.120	2500
CBF04YTUH181A	180	±25%	100MHz, 50mV	0.120	2500
CBF04YTUH221A	220	±25%	100MHz, 50mV	0.120	2500
CBF04YTUH301A	300	±25%	100MHz, 50mV	0.150	2000
CBF04YTUH501A	500	±25%	100MHz, 50mV	0.200	2000
CBF04YTUH601A	600	±25%	100MHz, 50mV	0.200	2000
CBF04YTUH801A	800	±25%	100MHz, 50mV	0.250	2000
CBF04YTUH102A	1000	±25%	100MHz, 50mV	0.250	2000
CBF04YTUH122A	1200	±25%	100MHz, 50mV	0.350	1000
CBF04YTUH152A	1500	±25%	100MHz, 50mV	0.450	500

Ultra High Current Electrical Specifications

CBF02(100505) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF02-TUM000A	0	0~15Ω	100MHz, 50mV	0.050	1800
CBF02-TUM050A	5	0~15Ω	100MHz, 50mV	0.050	1800
CBF02-TUM070A	7	0~11Ω	100MHz, 50mV	0.050	1800
CBF02-TUM090A	9	5~13Ω	100MHz, 50mV	0.050	1800
CBF02-TUM110A	11	7~15Ω	100MHz, 50mV	0.050	1800
CBF02-TUM150A	15	9~21Ω	100MHz, 50mV	0.050	1800
CBF02-TUM190A	19	12~25Ω	100MHz, 50mV	0.060	1500
CBF02YTUM300A	30	±25%	100MHz, 50mV	0.080	1300
CBF02YTUM600A	60	±25%	100MHz, 50mV	0.100	1000
CBF02YTUM700A	70	±25%	100MHz, 50mV	0.150	800
CBF02YTUM800A	80	±25%	100MHz, 50mV	0.150	800
CBF02YTUM101A	100	±25%	100MHz, 50mV	0.150	800
CBF02YTUM121A	120	±25%	100MHz, 50mV	0.150	800
CBF02YTUM151A	150	±25%	100MHz, 50mV	0.200	700
CBF02YTUM201A	200	±25%	100MHz, 50mV	0.250	700
CBF02YTUM221A	220	±25%	100MHz, 50mV	0.300	600
CBF02YTUM301A	300	±25%	100MHz, 50mV	0.300	600
CBF02YTUM501A	500	±25%	100MHz, 50mV	0.400	500
CBF02YTUM601A	600	±25%	100MHz, 50mV	0.500	500
CBF02YTUM801A	800	±25%	100MHz, 50mV	0.650	300
CBF02YTUM102A	1000	±25%	100MHz, 50mV	0.650	300

CBF03(160808) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF03-TUM000A	0	0~15Ω	100MHz, 50mV	0.020	6000
CBF03-TUM050A	5	0~15Ω	100MHz, 50mV	0.020	6000
CBF03-TUM070A	7	0~11Ω	100MHz, 50mV	0.020	6000
CBF03-TUM090A	9	5~13Ω	100MHz, 50mV	0.020	6000
CBF03-TUM110A	11	7~15Ω	100MHz, 50mV	0.030	5000
CBF03-TUM150A	15	9~21Ω	100MHz, 50mV	0.030	5000
CBF03-TUM190A	19	12~25Ω	100MHz, 50mV	0.030	5000
CBF03YTUM300A	30	±25%	100MHz, 50mV	0.030	4000
CBF03YTUM500A	50	±25%	100MHz, 50mV	0.040	3000
CBF03YTUM600A	60	±25%	100MHz, 50mV	0.040	3000
CBF03YTUM700A	70	±25%	100MHz, 50mV	0.060	2500
CBF03YTUM800A	80	±25%	100MHz, 50mV	0.060	2500
CBF03YTUM101A	100	±25%	100MHz, 50mV	0.060	2500
CBF03YTUM121A	120	±25%	100MHz, 50mV	0.065	2000
CBF03YTUM151A	150	±25%	100MHz, 50mV	0.090	1500
CBF03YTUM181A	180	±25%	100MHz, 50mV	0.090	1500
CBF03YTUM221A	220	±25%	100MHz, 50mV	0.120	1500
CBF03YTUM301A	300	±25%	100MHz, 50mV	0.180	1500
CBF03YTUM501A	500	±25%	100MHz, 50mV	0.180	1200
CBF03YTUM601A	600	±25%	100MHz, 50mV	0.180	1200
CBF03YTUM801A	800	±25%	100MHz, 50mV	0.300	700
CBF03YTUM102A	1000	±25%	100MHz, 50mV	0.400	600

CBF05(201209) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF05-TUM000A	0	0~15Ω	100MHz, 50mV	0.010	6000
CBF05-TUM050A	5	0~15Ω	100MHz, 50mV	0.010	6000
CBF05-TUM070A	7	0~11Ω	100MHz, 50mV	0.010	6000
CBF05-TUM090A	9	5~13Ω	100MHz, 50mV	0.010	6000
CBF05-TUM110A	11	7~15Ω	100MHz, 50mV	0.010	6000
CBF05-TUM150A	15	9~21Ω	100MHz, 50mV	0.010	6000
CBF05-TUM190A	19	12~25Ω	100MHz, 50mV	0.010	6000
CBF05YTUM300A	30	±25%	100MHz, 50mV	0.010	6000
CBF05YTUM310A	31	±25%	100MHz, 50mV	0.010	6000
CBF05YTUM500A	50	±25%	100MHz, 50mV	0.040	3500
CBF05YTUM600A	60	±25%	100MHz, 50mV	0.040	3500
CBF05YTUM700A	70	±25%	100MHz, 50mV	0.040	3000
CBF05YTUM800A	80	±25%	100MHz, 50mV	0.040	3000
CBF05YTUM101A	100	±25%	100MHz, 50mV	0.050	3000
CBF05YTUM121A	120	±25%	100MHz, 50mV	0.050	3000
CBF05YTUM151A	150	±25%	100MHz, 50mV	0.080	2500
CBF05YTUM181A	180	±25%	100MHz, 50mV	0.080	2500
CBF05YTUM221A	220	±25%	100MHz, 50mV	0.080	2500
CBF05YTUM301A	300	±25%	100MHz, 50mV	0.080	2500
CBF05YTUM501A	500	±25%	100MHz, 50mV	0.100	2000
CBF05YTUM601A	600	±25%	100MHz, 50mV	0.100	2000
CBF05YTUM102A	1000	±25%	100MHz, 50mV	0.120	1500

CBF04(321609) / U material

Part No.	Impedance (Ω)	Tolerance	Test Condition	DCR (Ω) max.	Rated Current (mA) max.
CBF04-TUM000A	0	0~15Ω	100MHz, 50mV	0.010	6000
CBF04-TUM050A	5	0~15Ω	100MHz, 50mV	0.010	6000
CBF04-TUM070A	7	0~11Ω	100MHz, 50mV	0.010	6000
CBF04-TUM090A	9	5~13Ω	100MHz, 50mV	0.015	6000
CBF04-TUM110A	11	7~15Ω	100MHz, 50mV	0.015	6000
CBF04-TUM150A	15	9~21Ω	100MHz, 50mV	0.015	6000
CBF04-TUM190A	19	12~25Ω	100MHz, 50mV	0.015	6000
CBF04YTUM260A	26	±25%	100MHz, 50mV	0.015	6000
CBF04YTUM280A	28	±25%	100MHz, 50mV	0.015	6000
CBF04YTUM300A	30	±25%	100MHz, 50mV	0.015	6000
CBF04YTUM310A	31	±25%	100MHz, 50mV	0.025	4000
CBF04YTUM500A	50	±25%	100MHz, 50mV	0.025	4000
CBF04YTUM600A	60	±25%	100MHz, 50mV	0.025	4000
CBF04YTUM700A	70	±25%	100MHz, 50mV	0.035	4000
CBF04YTUM800A	80	±25%	100MHz, 50mV	0.035	4000
CBF04YTUM101A	100	±25%	100MHz, 50mV	0.035	4000
CBF04YTUM121A	120	±25%	100MHz, 50mV	0.035	4000
CBF04YTUM151A	150	±25%	100MHz, 50mV	0.045	3000
CBF04YTUM181A	180	±25%	100MHz, 50mV	0.055	3000
CBF04YTUM221A	220	±25%	100MHz, 50mV	0.055	3000
CBF04YTUM301A	300	±25%	100MHz, 50mV	0.065	2500
CBF04YTUM501A	500	±25%	100MHz, 50mV	0.085	2500
CBF04YTUM601A	600	±25%	100MHz, 50mV	0.100	2000
CBF04YTUM801A	800	±25%	100MHz, 50mV	0.110	2000
CBF04YTUM102A	1000	±25%	100MHz, 50mV	0.120	2000

■ Environmental Characteristics

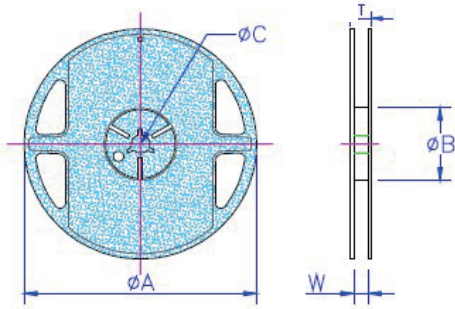
Item	Specification	Test Methods
High Temperature Exposure	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	at +125°C for 1000 hrs Measurement at 24 \pm 4 hrs after test conclusion
Temperature Cycle	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	-40°C to +125°C, 1000 cycles Measurement at 24 \pm 4 hrs after test conclusion
Biased Humidity	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	1000 hrs 85°C/85%RH. Unpowered. Measurement at 24 \pm 4 hrs after test conclusion
Operational Life	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	1000 hrs @125°C Test current: half of rated current at normal temperature Measurement at 24 \pm 4 hrs after test conclusion
Mechanical Shock	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	Wave Form: Tolerance for half sine shock pulse. Peak value is 100g's. Normal duration (D) is 6. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen(18 shocks)
Vibration	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	5 g's for 20 min., 12 cycles each of 3 orientations, 10-2000 Hz
Resistance to Solder Heat	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	260 \pm 5°C for 10 \pm 1 seconds
Solderability	More than 95 % of electrode area should be coated by new solder	245 \pm 5°C for 3 \pm 0.3 seconds
Board Flex	No mechanical damage. Impedance value should be within $\pm 30\%$ of the initial value	The testing samples shall be mounted on a 100mm \times 40mm FR4 PCB board , which is 1.6mm \pm 0.2mm thick. Bending shall be applied to the 2.0mm with 1.0mm/sec Duration : 60 \pm 5s
Terminal Strength	No mechanical damage Impedance value should be within $\pm 30\%$ of the initial value	The testing samples shall be mounted on the testing epoxy boards , exerting force on side of the samples, Size 1005: 5N ; \geq Size 1608 : 17.7N , Duration 60s \pm 1s

■ **Operating Temperature: -40°C ~ 125°C (Including self-heating temperature rise.)**

■ **Storage Temperature: -10~+40°C ; Humidity 30~70%RH**

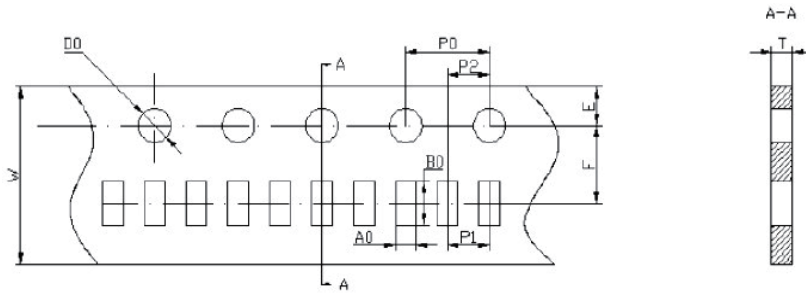
■ Packaging

Packaging Quantity & Reel Specifications



Type	ΦA	ΦB	ΦC	W	Quantity (EA)
CBF02	178±2.0	57±2.0	12.5±1.5	8+1.5/-0	10,000
CBF03	178±2.0	57±2.0	12.5±1.5	8+1.5/-0	4,000
CBF05	178±2.0	57±2.0	12.5±1.5	8+1.5/-0	4,000
CBF04	178±2.0	57±2.0	12.5±1.5	8+1.5/-0	4,000

Paper Tape Specifications

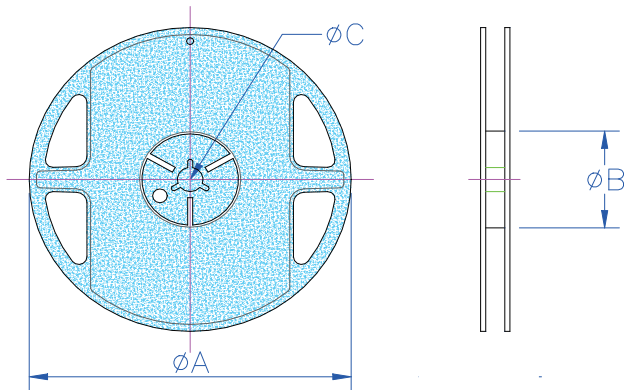


Unit: mm

Type	A_0	B_0	W	E	F	P_0	P_1	P_2	D_0	T
CBF02	0.65±0.10	1.15±0.20	8.0±0.20	1.75±0.20	3.5±0.10	4.00±0.20	2.00±0.10	2.00±0.10	1.55±0.10	0.60±0.10
CBF03	1.10±0.20	1.90±0.20	8.0±0.20	1.75±0.20	3.5±0.10	4.00±0.20	4.00±0.20	2.00±0.10	1.55±0.10	0.95±0.10
CBF05	1.50±0.20	2.30±0.20	8.0±0.20	1.75±0.20	3.5±0.10	4.00±0.20	4.00±0.20	2.00±0.10	1.55±0.10	0.95±0.10
CBF04	1.90±0.20	3.50±0.20	8.0±0.20	1.75±0.20	3.5±0.10	4.00±0.20	4.00±0.20	2.00±0.10	1.55±0.10	0.95±0.10

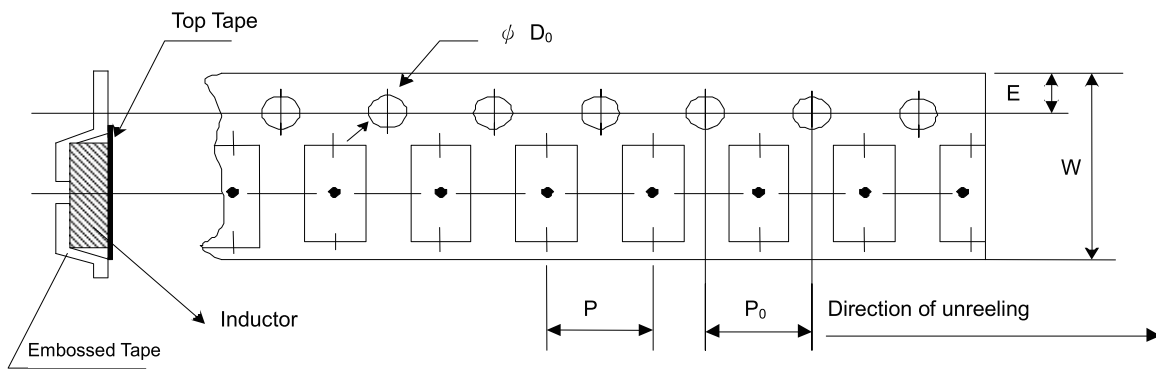
Packaging Information

■ SMD Tape and Reel Specifications



Unit: mm

Reel Diameter	ΦA	ΦB	ΦC
7 inch	178.5±1.5	60 ^{+1/-0}	13.0±0.5
13 inch	330±1.0	100±0.5	13.0±0.5



Unit: mm

Type	E	P ₀	ΦD ₀
Dimension	1.75±0.10	4.00±0.10	1.50+0.1, -0

SMD Tape and Reel Specifications

Series	Tape size		Parts Per Reel			Per Carton	
	W	P	7"	13"	G.W. (Kg)	Q'ty (K)	G.W. (Kg)
VLH322515	8	4	2000	-	0.20Kg	100K	11.40Kg
VLH322520	12	8	1000	-	0.18Kg	120K	15.00Kg
VLH453226	12	8	500	-	0.14Kg	24K	11.00Kg
VLH575047	16	12	-	1000	0.78Kg	16K	16.00Kg
SDIA0310	8	4	2000	-	0.10Kg	50K	6.10Kg
SDIA0312	8	4	2000	-	0.10Kg	50K	6.10Kg
SDIA0315	8	4	2000	-	0.10Kg	50K	6.10Kg
SDIA0410	12	8	-	5000	0.93Kg	60K	57.40Kg
SDIA0412	12	8	-	4500	0.88Kg	54K	49.12Kg
SDIA0415	12	8	-	3000	0.65Kg	36K	25.00Kg
SDIA0418	12	8	-	3000	0.65Kg	36K	25.00Kg
SDIA0420	12	8	-	3000	0.70Kg	36K	26.80Kg
SDIA0430	12	8	-	2500	0.65Kg	24K	17.20Kg
SDIA0520	12	8	-	2500	0.80Kg	30K	25.60Kg
SDIA0540	12	8	-	1500	0.85Kg	18K	16.90Kg
SDIA0620	12	8	-	2000	1.00Kg	18K	19.60Kg
SDIA0628	16	8	-	1500	1.03Kg	18K	20.14Kg
SDIA0645	16	12	-	1000	0.90Kg	9K	9.70Kg
SDIA0840	16	12	-	1000	1.32Kg	9K	13.48Kg
SDIA0865	16	12	-	700	1.33Kg	7K	15.67Kg
SDIA02512-G	8	4	3000	-	0.136Kg	150K	7.99Kg
SDIA0315-G	8	4	2000	-	0.152Kg	100K	8.79 Kg
SDIA0418-G	12	8	-	3000	0.639Kg	45K	11.08 Kg
SDIA0420-G	12	8	-	3000	0.678Kg	45K	11.60 Kg
SDIA0430-G	12	8	-	2000	0.657Kg	30K	11.35 Kg
SDIA0520-G	12	8	-	2500	0.781Kg	37.5K	13.21 Kg
SDIA0540-G	12	8	-	2000	0.991Kg	30K	16.36 Kg
SDIA0620-G	12	8	-	2500	0.982Kg	37.5K	16.23 Kg
SDIA0628-G	16	8	-	2000	1.050Kg	24K	14.10 Kg
SDIA0645-G	16	8	-	1500	1.121Kg	18K	14.95 Kg
SDIA0840-G	16	12	-	1000	1.200Kg	12K	15.90Kg
SDIM0210	8	4	2000	-	0.120Kg	120K	8.00Kg
SDIM02510	8	4	2000	-	0.120Kg	120K	8.00Kg
SDIM02512	8	4	2000	-	0.130Kg	120K	9.00Kg
SDIM0310	8	4	2000	-	0.183Kg	120K	12.00Kg
SDIM0312	8	4	2000	-	0.183Kg	120K	12.00Kg
SDIM0410	12	8	-	5000	1.125Kg	40K	10.00Kg
SDIM0412	12	8	-	4500	1.00Kg	36K	9.00Kg
PD1608	16	8	-	2000	0.72Kg	32K	16.00Kg
PD3308	24	12	-	1000	1.30Kg	12K	20.00Kg
PD3316	24	12	-	1000	1.10Kg	6K	18.00Kg
PD3340	24	16	-	225	1.00Kg	3K	16.00Kg
PD5022	32	20	-	250	1.60Kg	2K	17.00Kg
PCD0301	12	8	-	3000	0.50Kg	40K	12.00Kg
PCD0302	12	8	-	2000	0.53Kg	40K	13.00Kg
PCD0403	12	8	-	2000	0.72Kg	40K	18.00Kg
PCD0502	12	8	-	2000	0.88Kg	40K	20.00Kg
PCD0503	12	8	-	1500	0.88Kg	40K	20.00Kg
PCD0504	12	8	-	1500	0.89Kg	30K	22.00Kg
PCD0703	16	12	-	1000	0.89Kg	16K	18.00Kg
PCD0705	16	12	-	1000	1.20Kg	16K	24.00Kg

■ SMD Tape and Reel Specifications

Series	Tape size		Parts Per Reel			Per Carton	
	W	P	7"	13"	G.W.	Q'ty	G.W.
PCD1004	24	12	-	1000	1.20Kg	9K	18.00Kg
PCD1005	24	12	-	500	1.50Kg	2K	5.81Kg
PCD1006	24	12	-	500	1.00Kg	9K	12.00Kg
PS1608	16	8	-	2000	0.82Kg	32K	17.00Kg
PS3316	24	12	-	1000	1.30Kg	6K	20.00Kg
PS5022	32	20	-	250	1.60Kg	2K	17.00Kg
PCS62B	16	12	-	1500	0.65Kg	24K	15.00Kg
PCS64B	16	12	-	1000	1.24Kg	9K	11.20Kg
PCS73	16	12	-	1000	1.00Kg	16K	20.00Kg
PCS74	16	12	-	1000	1.20Kg	16K	24.00Kg
PCS124	24	16	-	500	1.60Kg	6K	24.00Kg
PCS125	24	16	-	400	1.90Kg	6K	26.00Kg
PCS127	24	16	-	400	1.80Kg	4.2K	26.00Kg
PCS129	24	16	-	300	2.2Kg	1.2K	11.30 Kg
PCSH127	24	16	-	500	2.3 Kg	2.5K	14.00Kg
PCDR0628	16	12	-	1000	0.60Kg	16K	14.00Kg
PCDR0728	16	12	-	1000	0.75Kg	16K	16.00Kg
PCDR0730	16	12	-	1000	0.80Kg	16K	17.00Kg
PCDR0732	16	12	-	1000	0.85Kg	16K	18.00Kg
PCDR0745	16	12	-	1000	1.10Kg	16K	22.00Kg
PCDR1045	24	16	-	750	1.70Kg	9K	25.00Kg
PCDR1255	24	16	-	500	1.60Kg	6K	24.00Kg
PCDR1265	24	16	-	500	1.80Kg	4.2K	26.00Kg
PCDR1275	24	16	-	350	1.60Kg	4.2K	24.00Kg
PSDB5D28	12	8	-	2000	1.10Kg	40K	25.00Kg
PSDB1003	24	16	-	1000	1.60Kg	12K	24.00Kg
PSDB1004	24	16	-	750	1.60Kg	9K	24.00Kg
PSDB1005	24	16	-	750	1.80Kg	9K	26.00Kg
SCDS3D18	12	8	1000	-	0.80Kg	80K	21.00Kg
SCDS4D18	12	8	-	2000	0.54Kg	40K	15.00Kg
SCDS4D28	12	8	-	2000	0.68Kg	40K	18.00Kg
SCDS5D18	12	8	-	2000	0.86Kg	40K	22.00Kg
SCDS5D28	12	8	-	2000	1.10Kg	40K	25.00Kg
SCDS6D28	16	12	-	1500	1.00Kg	24K	20.00Kg
SCDS6D38	16	12	-	1000	1.10Kg	16K	22.00Kg
SDRH0845	24	12	-	1000	1.40Kg	8K	13.70Kg
SDA0420	12	8	-	3000	0.93Kg	30K	11.4Kg
SDA0430	12	8	-	2000	0.94Kg	20K	11.5Kg
SDA0530	16	8	-	2000	1.3Kg	20K	15.4Kg
SDA0630	16	12	-	1000	1.03Kg	10K	12.3Kg
SDA0660	16	12	-	750	1.52Kg	7.5K	17.27Kg
SDA0730	16	12	-	1500	1.88Kg	15K	20.9Kg
SDA0750	16	12	-	800	1.7Kg	8K	19.08Kg
SDA0880	24	16	-	450	1.8Kg	3.6K	15.9Kg
SDA1006	24	16	-	500	2.4Kg	4K	20.7Kg
SDA1010	24	16	-	300	2.53Kg	2.4K	21.81Kg
SDA1508	32	24	-	200	2.7Kg	1K	15.3Kg
SDA1510	32	24	-	150	2.66Kg	0.75K	15Kg
SDA1513	32	24	-	100	2.16Kg	0.5K	12.6Kg

■ SMD Tape and Reel Specifications

Series	Tape size		Parts Per Reel			Per Carton	
	W	P	7"	13"	G.W.	Q'ty	G.W.
SDB0420	12	8	-	3500	1.02Kg	28K	9.5Kg
SDB0520	12	8	-	3000	1.16Kg	24K	10.6Kg
SDB0530	12	8	-	2500	1.45Kg	20K	14Kg
SDB0620	16	12	-	2000	1.40Kg	12K	12Kg
SDB0625	16	12	-	2000	1.45Kg	12K	12Kg
SDB0630	16	12	-	1500	1.45Kg	9K	12Kg
SDB0650	16	12	-	800	1.45Kg	4.8K	12Kg
SDB1040	24	16	-	800	2.80Kg	3.2K	12Kg
SDB1340	24	16	-	500	2.6Kg	2K	14.4Kg
SDB1350	24	16	-	500	2.8Kg	2K	15.2Kg
SDB1365	24	16	-	500	3.45Kg	2K	15.8Kg
SDN0412	12	8	-	3000	0.30Kg	30K	9.0Kg
SDN0420	12	8	-	3000	0.60Kg	30K	12Kg
SDN0518	12	8	-	2000	0.52Kg	20K	11Kg
SDN0530	12	8	--	2000	0.88Kg	20K	15.4Kg
SDN0618	16	12	--	1500	0.71Kg	15K	12.2Kg
SDN0624	16	12	--	1500	0.90Kg	15K	15.5Kg
SDN0630	16	12	--	1500	1.05Kg	15K	16.5Kg
SDN1040	24	16	--	500	1.20Kg	4.5K	15.5Kg
SDIA0315..A	8	4	2000	--	0.10Kg	50K	6.10Kg
SDIA0418..A	12	8	--	3000	0.65Kg	36K	25.00Kg
SDIA0430..A	12	8	--	2500	0.80Kg	30K	25.60Kg
SDIA0520..A	12	8	--	2500	0.80Kg	30K	25.60Kg
SDIA0540..A	12	8	--	1500	0.85Kg	18K	16.90Kg
SDIA0628..A	16	8	--	1500	1.03Kg	18K	20.14Kg
SDIA0645..A	16	12	--	1000	0.90Kg	9K	9.70Kg
SDA0630..A	16	12	-	1000	1Kg	8K	9.5kg
SDE0420..A	12	8	-	3000	1.800Kg	24K	16.438Kg
SDE0530..A	12	8	-	2000	1.868Kg	16K	16.974Kg
SDE0630..A	16	12	-	1000	1.775Kg	8K	16.230Kg
SDE0650..A	16	12	-	800	1.878Kg	6.4K	17.058Kg
SDE1040..A	24	16	-	500	2.228Kg	4K	19.854Kg
SDE1050..A	24	16	-	500	2.503Kg	4K	22.054Kg
SDE1265..A	24	16	-	500	4.028Kg	4K	34.254Kg
SDE1770..A	32	24	-	200	2.690Kg	0.8K	12.791Kg

■ Package for Dip Power Inductor

Tape	Parts plate	Parts per box	Per Carton	
			Q'ty	G.W.
DRGH664	200	2400	9600	10.56Kg
DRGH855	200	2400	9600	12.00Kg
DRGH875	200	2400	9600	12.48Kg
DRGH895	200	2400	9600	13.44Kg
DRGH110	144	1296	5184	16.60Kg
DRGR664	200	2400	9600	13.20Kg
DRGR875	200	2400	9600	13.60Kg
DRGR110	144	1296	5184	17.73Kg