

Data Sheet

Customer:

Product: Shielded SMD Power Inductor – SCDS Series

Sizes.: 3D18/4D18/4D22/4D28/5D18/5D28/6D28/6D38

Issued Date: 05-Jan-18

Edition: REV.B7



VIKING TECH CORPORATION
光韻科技股份有限公司
No.70, Guangfu N. Rd., Hukou
Township, Hsinchu County
303, Taiwan (R.O.C)

TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

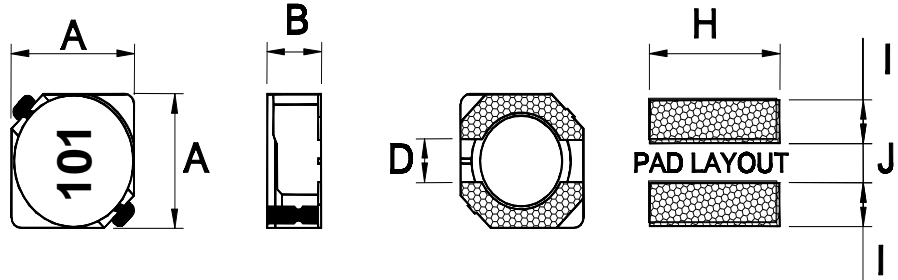
VIKING TECH CORPORATION KAOHSIUNG BRANCH
光韻科技股份有限公司高雄分公司
No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

VIKING ELECTRONICS (WUXI) CO., LTD.
光韻電子(無錫)有限公司
No.22 Xixia Road, Machinery & Industry Park,
National Hi-Tech Industrial Development Zone
of Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028
TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:china@viking.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
05-Jan-18	05-Jan-18	05-Jan-18	05-Jan-18	
<i>Kris Chen</i>	<i>Ben Chang</i>	<i>Ben Chang</i>		

Shielded SMD Power Inductor



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 or the current when the temperature of coil increases to $\Delta 40^{\circ}\text{C}$. The smaller one is defined as Rated DC Current. ($T_a=25^{\circ}\text{C}$)
- Operating temperature range: $-40\sim 125^{\circ}\text{C}$

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
SCDS4D22	4.7 ± 0.3	2.4	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 1.0~220 μH 2.40~0.13A
- SCDS4D18 1.0~220 μH 1.72~0.13A
- SCDS4D22 1.5~150 μH 2.00~0.21A
- SCDS4D28 1.0~220 μH 2.65~0.21A
- SCDS5D18 2.2~470 μH 2.30~0.18A
- SCDS5D28 2.2~680 μH 2.60~0.18A
- SCDS6D28 1.0~330 μH 6.15~0.35A
- SCDS6D38 1.0~560 μH 5.60~0.29A

– 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 4D22: 4.7x4.7x2.4 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: $\pm 20\%$ N: $\pm 30\%$	T: Tape and Reel	1R0: 1.0 μH 470: 47 μH 101: 100 μH

Shielded SMD Power Inductor

Electrical Characteristics

SCDS3D18 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS3D18□T1R0	1.0	N	100KHz, 0.1V	0.050	2.40
SCDS3D18□T1R5	1.5	N	100KHz, 0.1V	0.056	1.55
SCDS3D18□T2R2	2.2	N	100KHz, 0.1V	0.072	1.20
SCDS3D18□T3R3	3.3	N	100KHz, 0.1V	0.085	1.10
SCDS3D18□T4R7	4.7	N	100KHz, 0.1V	0.105	0.90
SCDS3D18□T6R8	6.8	N	100KHz, 0.1V	0.170	0.73
SCDS3D18□T100	10	M, N	100KHz, 0.1V	0.210	0.55
SCDS3D18□T120	12	M, N	100KHz, 0.1V	0.275	0.50
SCDS3D18□T150	15	M, N	100KHz, 0.1V	0.295	0.45
SCDS3D18□T220	22	M, N	100KHz, 0.1V	0.430	0.40
SCDS3D18□T270	27	M, N	100KHz, 0.1V	0.557	0.38
SCDS3D18□T330	33	M, N	100KHz, 0.1V	0.675	0.32
SCDS3D18□T470	47	M, N	100KHz, 0.1V	0.964	0.27
SCDS3D18□T560	56	M, N	100KHz, 0.1V	1.330	0.22
SCDS3D18□T101	100	M, N	100KHz, 0.1V	2.600	0.16
SCDS3D18□T221	220	M, N	100KHz, 0.1V	4.770	0.13

SCDS4D18 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS4D18□T1R0	1.0	N	100KHz, 0.1V	0.045	1.72
SCDS4D18□T1R2	1.2	N	100KHz, 0.1V	0.048	1.65
SCDS4D18□T1R5	1.5	N	100KHz, 0.1V	0.050	1.60
SCDS4D18□T1R8	1.8	N	100KHz, 0.1V	0.058	1.35
SCDS4D18□T2R2	2.2	N	100KHz, 0.1V	0.075	1.32
SCDS4D18□T2R7	2.7	N	100KHz, 0.1V	0.105	1.28
SCDS4D18□T3R3	3.3	N	100KHz, 0.1V	0.110	1.04
SCDS4D18□T3R9	3.9	N	100KHz, 0.1V	0.155	0.88
SCDS4D18□T4R7	4.7	N	100KHz, 0.1V	0.162	0.84
SCDS4D18□T5R6	5.6	N	100KHz, 0.1V	0.170	0.80
SCDS4D18□T6R8	6.8	N	100KHz, 0.1V	0.200	0.76
SCDS4D18□T8R2	8.2	N	100KHz, 0.1V	0.245	0.68
SCDS4D18□T100	10	M, N	100KHz, 0.1V	0.200	0.61
SCDS4D18□T120	12	M, N	100KHz, 0.1V	0.210	0.56
SCDS4D18□T150	15	M, N	100KHz, 0.1V	0.240	0.50
SCDS4D18□T180	18	M, N	100KHz, 0.1V	0.338	0.48
SCDS4D18□T220	22	M, N	100KHz, 0.1V	0.397	0.41
SCDS4D18□T270	27	M, N	100KHz, 0.1V	0.441	0.35
SCDS4D18□T330	33	M, N	100KHz, 0.1V	0.694	0.32
SCDS4D18□T390	39	M, N	100KHz, 0.1V	0.709	0.30
SCDS4D18□T470	47	M, N	100KHz, 0.1V	0.922	0.28
SCDS4D18□T560	56	M, N	100KHz, 0.1V	1.080	0.26
SCDS4D18□T680	68	M, N	100KHz, 0.1V	1.300	0.24
SCDS4D18□T820	82	M, N	100KHz, 0.1V	1.560	0.22
SCDS4D18□T101	100	M, N	100KHz, 0.1V	1.730	0.20
SCDS4D18□T121	120	M, N	100KHz, 0.1V	2.390	0.18
SCDS4D18□T151	150	M, N	100KHz, 0.1V	2.670	0.15
SCDS4D18□T181	180	M, N	100KHz, 0.1V	4.000	0.14
SCDS4D18□T221	220	M, N	100KHz, 0.1V	4.300	0.13

Shielded SMD Power Inductor

Electrical Characteristics

SCDS4D22 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS4D22□T1R5	1.5	N	100KHz, 0.1V	0.018	2.00
SCDS4D22□T1R8	1.8	N	100KHz, 0.1V	0.021	1.90
SCDS4D22□T2R2	2.2	N	100KHz, 0.1V	0.025	1.80
SCDS4D22□T3R3	3.3	N	100KHz, 0.1V	0.035	1.40
SCDS4D22□T3R9	3.9	N	100KHz, 0.1V	0.040	1.30
SCDS4D22□T4R7	4.7	N	100KHz, 0.1V	0.056	1.10
SCDS4D22□T5R6	5.6	N	100KHz, 0.1V	0.062	1.05
SCDS4D22□T6R8	6.8	N	100KHz, 0.1V	0.088	1.00
SCDS4D22□T6R8-1	6.8	N	100KHz, 0.1V	0.070	1.00
SCDS4D22□T8R2	8.2	N	100KHz, 0.1V	0.097	0.90
SCDS4D22□T100	10	N	100KHz, 0.1V	0.102	0.80
SCDS4D22□T120	12	N	100KHz, 0.1V	0.110	0.75
SCDS4D22□T150	15	N	100KHz, 0.1V	0.127	0.68
SCDS4D22□T180	18	N	100KHz, 0.1V	0.169	0.60
SCDS4D22□T220	22	N	100KHz, 0.1V	0.200	0.54
SCDS4D22□T270	27	N	100KHz, 0.1V	0.283	0.51
SCDS4D22□T330	33	N	100KHz, 0.1V	0.326	0.48
SCDS4D22□T390	39	N	100KHz, 0.1V	0.451	0.43
SCDS4D22□T470	47	N	100KHz, 0.1V	0.500	0.38
SCDS4D22□T560	56	N	100KHz, 0.1V	0.555	0.36
SCDS4D22□T680	68	N	100KHz, 0.1V	0.634	0.33
SCDS4D22□T820	82	N	100KHz, 0.1V	0.794	0.30
SCDS4D22□T101	100	N	100KHz, 0.1V	0.880	0.25
SCDS4D22□T121	120	N	100KHz, 0.1V	1.140	0.23
SCDS4D22□T151	150	N	100KHz, 0.1V	1.350	0.21

SCDS4D28 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS4D28□T1R0	1.0	N	100KHz, 0.1V	0.020	2.65
SCDS4D28□T1R2	1.2	N	100KHz, 0.1V	0.024	2.56
SCDS4D28□T1R8	1.8	N	100KHz, 0.1V	0.028	2.20
SCDS4D28□T2R2	2.2	N	100KHz, 0.1V	0.031	2.04
SCDS4D28□T2R7	2.7	N	100KHz, 0.1V	0.043	1.60
SCDS4D28□T3R3	3.3	N	100KHz, 0.1V	0.049	1.57
SCDS4D28□T3R9	3.9	N	100KHz, 0.1V	0.065	1.44
SCDS4D28□T4R7	4.7	N	100KHz, 0.1V	0.072	1.32
SCDS4D28□T5R6	5.6	N	100KHz, 0.1V	0.101	1.17
SCDS4D28□T6R8	6.8	N	100KHz, 0.1V	0.109	1.12
SCDS4D28□T8R2	8.2	N	100KHz, 0.1V	0.118	1.04
SCDS4D28□T100	10	M, N	100KHz, 0.1V	0.128	1.00
SCDS4D28□T120	12	M, N	100KHz, 0.1V	0.132	0.84
SCDS4D28□T150	15	M, N	100KHz, 0.1V	0.149	0.76
SCDS4D28□T180	18	M, N	100KHz, 0.1V	0.166	0.72
SCDS4D28□T220	22	M, N	100KHz, 0.1V	0.235	0.70
SCDS4D28□T270	27	M, N	100KHz, 0.1V	0.261	0.58
SCDS4D28□T330	33	M, N	100KHz, 0.1V	0.378	0.56
SCDS4D28□T390	39	M, N	100KHz, 0.1V	0.384	0.50
SCDS4D28□T470	47	M, N	100KHz, 0.1V	0.587	0.48
SCDS4D28□T560	56	M, N	100KHz, 0.1V	0.625	0.41
SCDS4D28□T680	68	M, N	100KHz, 0.1V	0.699	0.35
SCDS4D28□T820	82	M, N	100KHz, 0.1V	0.915	0.32
SCDS4D28□T101	100	M, N	100KHz, 0.1V	1.020	0.29
SCDS4D28□T121	120	M, N	100KHz, 0.1V	1.270	0.27
SCDS4D28□T151	150	M, N	100KHz, 0.1V	1.360	0.24
SCDS4D28□T181	180	M, N	100KHz, 0.1V	1.540	0.22
SCDS4D28□T221	220	M, N	100KHz, 0.1V	2.000	0.21

Shielded SMD Power Inductor

■Electrical Characteristics

SCDS5D18 Type(□:Tolerance):

Part No	L (μ H)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS5D18□T2R2	2.2	N	10KHz, 0.1V	0.039	2.30
SCDS5D18□T2R6	2.6	N	10KHz, 0.1V	0.046	2.20
SCDS5D18□T3R3	3.3	N	10KHz, 0.1V	0.048	2.00
SCDS5D18□T4R1	4.1	N	10KHz, 0.1V	0.057	1.80
SCDS5D18□T4R7	4.7	N	10KHz, 0.1V	0.072	1.77
SCDS5D18□T5R4	5.4	N	10KHz, 0.1V	0.076	1.60
SCDS5D18□T6R2	6.2	N	10KHz, 0.1V	0.096	1.40
SCDS5D18□T6R8	6.8	N	10KHz, 0.1V	0.110	1.30
SCDS5D18□T8R9	8.9	N	10KHz, 0.1V	0.116	1.25
SCDS5D18□T100	10	M, N	10KHz, 0.1V	0.124	1.20
SCDS5D18□T120	12	M, N	10KHz, 0.1V	0.153	1.10
SCDS5D18□T150	15	M, N	10KHz, 0.1V	0.196	0.97
SCDS5D18□T180	18	M, N	10KHz, 0.1V	0.210	0.85
SCDS5D18□T220	22	M, N	10KHz, 0.1V	0.290	0.80
SCDS5D18□T270	27	M, N	10KHz, 0.1V	0.330	0.75
SCDS5D18□T330	33	M, N	10KHz, 0.1V	0.386	0.65
SCDS5D18□T390	39	M, N	10KHz, 0.1V	0.520	0.57
SCDS5D18□T470	47	M, N	10KHz, 0.1V	0.595	0.54
SCDS5D18□T560	56	M, N	10KHz, 0.1V	0.665	0.50
SCDS5D18□T680	68	M, N	10KHz, 0.1V	0.840	0.43
SCDS5D18□T820	82	M, N	10KHz, 0.1V	0.978	0.41
SCDS5D18□T101	100	M, N	10KHz, 0.1V	1.200	0.35
SCDS5D18□T151	150	M, N	10KHz, 0.1V	2.000	0.25
SCDS5D18□T221	220	M, N	10KHz, 0.1V	3.280	0.20
SCDS5D18□T471	470	M, N	10KHz, 0.1V	6.560	0.18

Shielded SMD Power Inductor

■Electrical Characteristics

SCDS5D28 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS5D28□T2R2	2.2	N	10KHz, 0.1V	0.018	2.60
SCDS5D28□T2R6	2.6	N	10KHz, 0.1V	0.018	2.60
SCDS5D28□T3R0	3.0	N	10KHz, 0.1V	0.024	2.40
SCDS5D28□T3R3	3.3	N	10KHz, 0.1V	0.035	2.40
SCDS5D28□T4R2	4.2	N	10KHz, 0.1V	0.031	2.20
SCDS5D28□T4R7	4.7	M, N	10KHz, 0.1V	0.037	2.00
SCDS5D28□T5R3	5.3	N	10KHz, 0.1V	0.038	1.90
SCDS5D28□T5R6	5.6	N	10KHz, 0.1V	0.040	1.85
SCDS5D28□T6R2	6.2	N	10KHz, 0.1V	0.045	1.80
SCDS5D28□T6R8	6.8	N	10KHz, 0.1V	0.050	1.82
SCDS5D28□T8R2	8.2	N	10KHz, 0.1V	0.053	1.60
SCDS5D28□T100	10	M, N	10KHz, 0.1V	0.065	1.30
SCDS5D28□T100-2	10	N	100KHz, 0.1V	0.065	1.30
SCDS5D28□T120	12	M, N	10KHz, 0.1V	0.076	1.20
SCDS5D28□T150	15	M, N	10KHz, 0.1V	0.103	1.10
SCDS5D28□T180	18	M, N	10KHz, 0.1V	0.110	1.00
SCDS5D28□T220	22	M, N	10KHz, 0.1V	0.122	0.90
SCDS5D28□T220-1	22	N	100KHz, 0.25V	0.122	0.90
SCDS5D28□T270	27	M, N	10KHz, 0.1V	0.175	0.85
SCDS5D28□T330	33	M, N	10KHz, 0.1V	0.189	0.75
SCDS5D28□T390	39	M, N	10KHz, 0.1V	0.212	0.70
SCDS5D28□T470	47	M, N	10KHz, 0.1V	0.260	0.62
SCDS5D28□T560	56	M, N	10KHz, 0.1V	0.305	0.58
SCDS5D28□T680	68	M, N	10KHz, 0.1V	0.355	0.52
SCDS5D28□T820	82	M, N	10KHz, 0.1V	0.463	0.46
SCDS5D28□T101	100	M, N	10KHz, 0.1V	0.520	0.42
SCDS5D28□T151	150	M, N	10KHz, 0.1V	0.810	0.40
SCDS5D28□T181	180	M, N	10KHz, 0.1V	1.100	0.35
SCDS5D28□T221	220	M, N	10KHz, 0.1V	1.250	0.32
SCDS5D28□T331	330	M, N	10KHz, 0.1V	1.650	0.28
SCDS5D28□T471	470	M, N	10KHz, 0.1V	3.560	0.22
SCDS5D28□T561	560	M, N	10KHz, 0.1V	4.230	0.20
SCDS5D28□T681	680	M, N	10KHz, 0.1V	4.500	0.18

Shielded SMD Power Inductor

■Electrical Characteristics

SCDS6D28 Type(□:Tolerance):

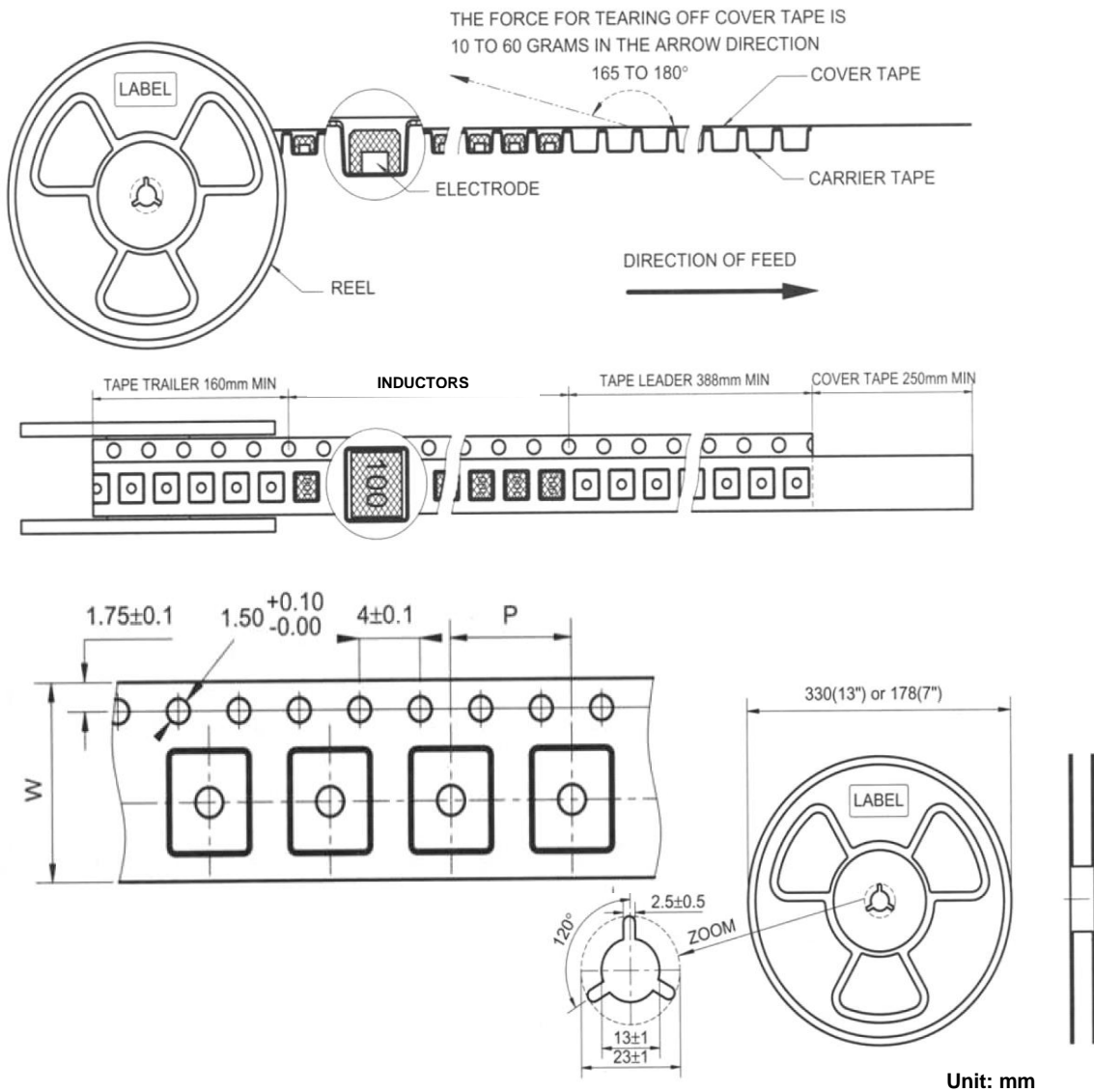
Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS6D28□T1R0	1.0	N	10KHz, 0.1V	0.012	6.15
SCDS6D28□T2R2	2.2	M, N	10KHz, 0.1V	0.018	4.00
SCDS6D28□T3R0	3.0	N	10KHz, 0.1V	0.024	3.00
SCDS6D28□T3R3	3.3	N	10KHz, 0.1V	0.026	2.80
SCDS6D28□T3R9	3.9	N	10KHz, 0.1V	0.027	2.60
SCDS6D28□T4R7	4.7	N	10KHz, 0.1V	0.029	2.50
SCDS6D28□T5R0	5.0	N	10KHz, 0.1V	0.031	2.40
SCDS6D28□T5R3	5.3	N	10KHz, 0.1V	0.033	2.30
SCDS6D28□T6R0	6.0	N	10KHz, 0.1V	0.035	2.25
SCDS6D28□T6R8	6.8	N	10KHz, 0.1V	0.052	2.20
SCDS6D28□T7R3	7.3	N	10KHz, 0.1V	0.054	2.10
SCDS6D28□T8R6	8.6	N	10KHz, 0.1V	0.058	1.85
SCDS6D28□T100	10	M, N	10KHz, 0.1V	0.065	1.70
SCDS6D28□T120	12	M, N	10KHz, 0.1V	0.070	1.55
SCDS6D28□T150	15	M, N	10KHz, 0.1V	0.084	1.40
SCDS6D28□T180	18	M, N	10KHz, 0.1V	0.095	1.32
SCDS6D28□T220	22	M, N	10KHz, 0.1V	0.128	1.20
SCDS6D28□T270	27	M, N	10KHz, 0.1V	0.142	1.05
SCDS6D28□T330	33	M, N	10KHz, 0.1V	0.165	0.97
SCDS6D28□T390	39	M, N	10KHz, 0.1V	0.210	0.86
SCDS6D28□T470	47	M, N	10KHz, 0.1V	0.238	0.80
SCDS6D28□T560	56	M, N	10KHz, 0.1V	0.277	0.73
SCDS6D28□T680	68	M, N	10KHz, 0.1V	0.304	0.65
SCDS6D28□T820	82	M, N	10KHz, 0.1V	0.390	0.60
SCDS6D28□T101	100	M, N	10KHz, 0.1V	0.535	0.54
SCDS6D28□T151	150	M, N	10KHz, 0.1V	0.640	0.40
SCDS6D28□T221	220	M, N	10KHz, 0.1V	1.350	0.35
SCDS6D28□T331	330	M, N	10KHz, 0.1V	2.000	0.35

SCDS6D38 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS6D38□T1R0	1.0	N	10KHz, 0.1V	0.016	5.60
SCDS6D38□T 2R2	2.2	N	10KHz, 0.1V	0.019	4.40
SCDS6D38□T 3R3	3.3	M, N	10KHz, 0.1V	0.020	3.50
SCDS6D38□T 5R0	5.0	M, N	10KHz, 0.1V	0.024	2.75
SCDS6D38□T6R2	6.2	M, N	10KHz, 0.1V	0.027	2.50
SCDS6D38□T7R4	7.4	M, N	10KHz, 0.1V	0.031	2.30
SCDS6D38□T8R7	8.7	M, N	10KHz, 0.1V	0.034	2.20
SCDS6D38□T100	10	M, N	10KHz, 0.1V	0.038	2.00
SCDS6D38□T120	12	M, N	10KHz, 0.1V	0.053	1.70
SCDS6D38□T150	15	M, N	10KHz, 0.1V	0.057	1.60
SCDS6D38□T180	18	M, N	10KHz, 0.1V	0.092	1.50
SCDS6D38□T220	22	M, N	10KHz, 0.1V	0.096	1.30
SCDS6D38□T270	27	M, N	10KHz, 0.1V	0.109	1.20
SCDS6D38□T330	33	M, N	10KHz, 0.1V	0.124	1.10
SCDS6D38□T390	39	M, N	10KHz, 0.1V	0.138	1.00
SCDS6D38□T470	47	M, N	10KHz, 0.1V	0.155	0.95
SCDS6D38□T560	56	M, N	10KHz, 0.1V	0.202	0.85
SCDS6D38□T680	68	M, N	10KHz, 0.1V	0.234	0.75
SCDS6D38□T820	82	M, N	10KHz, 0.1V	0.324	0.70
SCDS6D38□T101	100	M, N	10KHz, 0.1V	0.368	0.65
SCDS6D38□T151	150	M, N	10KHz, 0.1V	0.483	0.60
SCDS6D38□T331	330	M, N	10KHz, 0.1V	1.250	0.39
SCDS6D38□T561	560	M, N	10KHz, 0.1V	2.850	0.29

Shielded SMD Power Inductor

■Tape and Reel specifications



Type	Tape size		Parts Per Reel	
	W	P	7"	13"
SCDS3D18	12	8	1000	-
SCDS4D18	12	8	-	2000
SCDS4D22	12	8	-	2000
SCDS4D28	12	8	-	2000
SCDS5D18	12	8	-	2000
SCDS5D28	12	8	-	2000
SCDS6D28	16	12	-	1500
SCDS6D38	16	12	-	1000

Shielded SMD Power Inductor

■ SMT Power Inductor Environmental Specifications

General

Items	Specifications
Shelf Storage conditions	Temperature range: 15~28°C; Humidity: <80% relative humidity. Recommended product should be used within one year from the time of delivery.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -25±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours Tested after 1hour at room temperature.
Thermal shock test		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

Test Items	Specifications	Test Conditions / Test Methods
Solder ability test	Terminal area must have 90% minimum solder coverage.	Dip pads in flux then dip in solder pot (SnCuNi) at 245±5°C for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130~150°C. Immersing to 260±5°C for 10 seconds.
Vibration test	No case deformation or change in appearance.	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance	$\Delta L/L \leq 10\%$	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)

