

Data Sheet

Customer:

Product: Shielded SMD Power Inductor – SCDS Series

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

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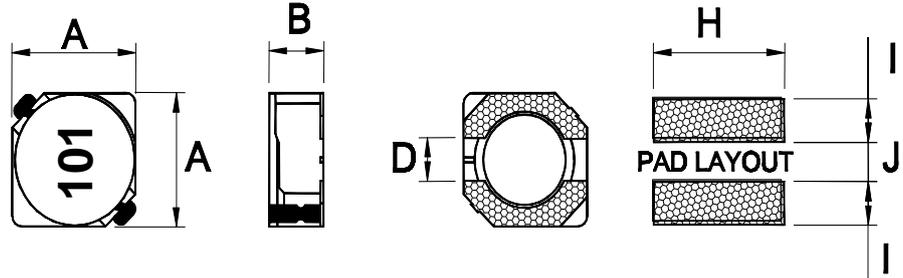
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Shielded SMD Power Inductor



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 \pm 0.3	2.0	1.1	4.6	1.65	1.0
SCDS4D18	4.7 \pm 0.3	2.0	1.5	5.3	1.90	1.5
SCDS4D22	4.7 \pm 0.3	2.4	1.5	5.3	1.90	1.5
SCDS4D28	4.7 \pm 0.3	3.0	1.5	5.3	1.90	1.5
SCDS5D18	5.7 \pm 0.3	2.0	2.0	6.3	2.15	2.0
SCDS5D28	5.7 \pm 0.3	3.0	2.0	6.3	2.15	2.0
SCDS6D28	6.7 \pm 0.3	3.0	2.0	7.3	2.65	2.0
SCDS6D38	6.7 \pm 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	M, N	100KHz, 0.1V	0.072	1.20
SCDS3D18□T3R3	3.3	M, N	100KHz, 0.1V	0.085	1.10
SCDS3D18□T4R7	4.7	M, N	100KHz, 0.1V	0.105	0.90
SCDS3D18□T6R8	6.8	M, 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

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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):

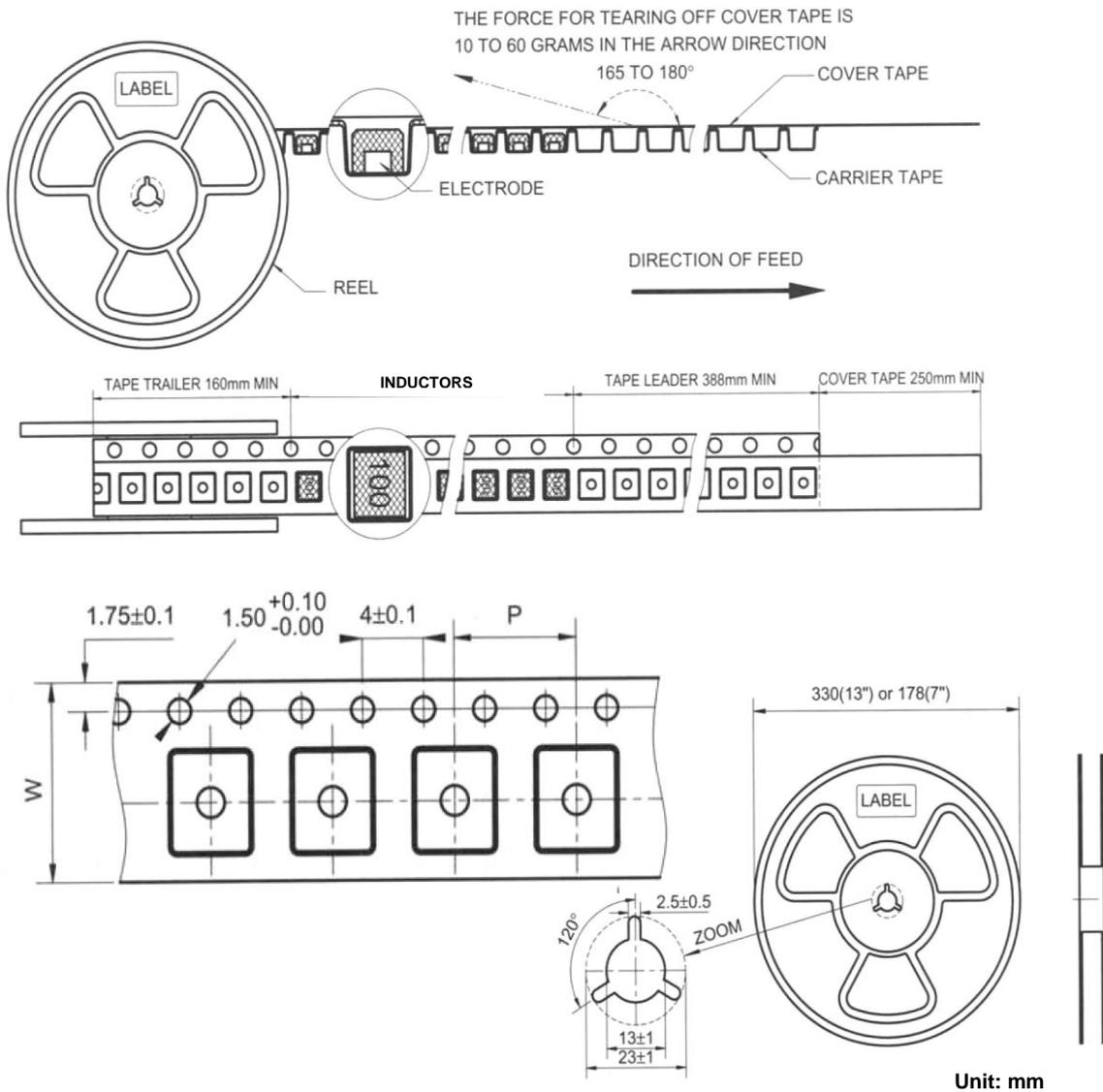
Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
SCDS6D28□T1R0	1.0	N	10KHz, 0.1V	0.012	6.15
SCDS6D28□T2R2	2.2	M, N	10KHz, 0.1V	0.018	4.00
SCDS6D28□T3R0	3.0	N	10KHz, 0.1V	0.024	3.00
SCDS6D28□T3R3	3.3	N	10KHz, 0.1V	0.026	2.80
SCDS6D28□T3R9	3.9	N	10KHz, 0.1V	0.027	2.60
SCDS6D28□T4R7	4.7	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)

