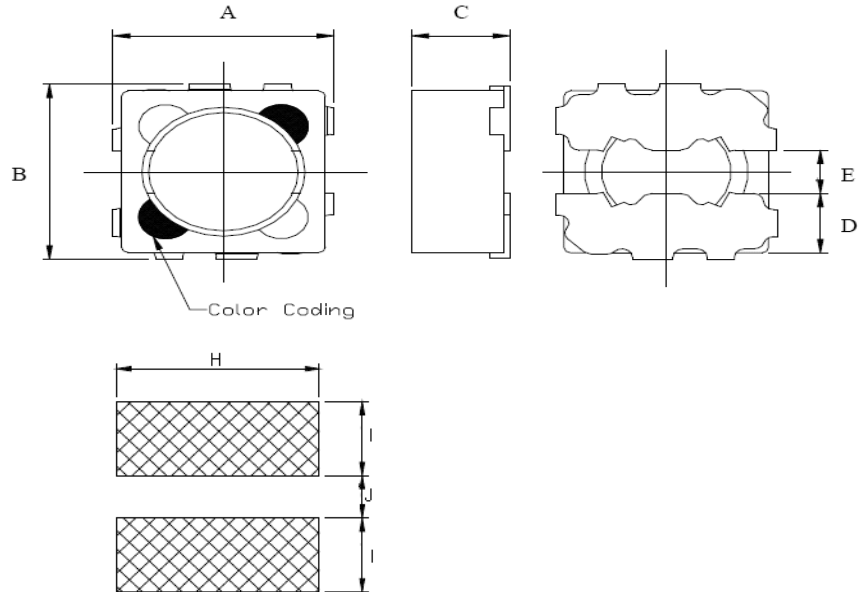
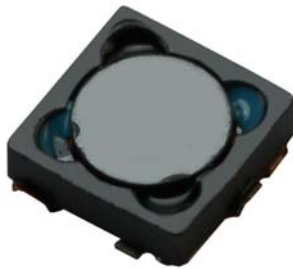


Shielded SMD Power Inductor – SCDA



Features

- low profile, low RDC, lower resistance and high current handling capacities
- Flat bottom surface ensures secure, reliable mounting
- Magnetically shielded structure that ensures the high-density mounting configurations.

Applications

- PDA, DSC, PDA And Other Electronic Equipments
- Hard Disk Drives
- Low Profile/ Low Resistance Specifically Suitable For Portable Telephones

Characteristics

- Saturation Rated Current(IDC): The current when the inductance becomes 10% or 35% lower than its initial value.
- Temperature Rise Current(Irms): For a 25°C rise above 25°C ambient.
- Operating temperature range: -25~105°C

Dimensions

Unit: mm

Type	A	B	C max.	D	E	H	I	J
SCDA2D10	3.2±0.2	3.2±0.2	1.05	1.1	0.8	3.6	1.4	0.8
SCDA2D15	3.2±0.2	3.2±0.2	1.6	1.1	0.8	3.6	1.4	0.8
SCDA2D18	3.2±0.2	3.2±0.2	1.8	1.1	0.8	3.6	1.4	0.8
SCDA3D12	4.2±0.2	4.2±0.2	1.25	1.3	1.4	4.6	1.6	1.4
SCDA3D15	4.2±0.2	4.2±0.2	1.6	1.3	1.4	4.6	1.6	1.4
SCDA3D18	4.2±0.2	4.2±0.2	1.8	1.3	1.4	4.6	1.6	1.4

Inductance and rated current ranges

– SCDA2D10	1.2~47μH	1.40~0.18A
– SCDA2D15L	1.0~18μH	1.40~0.30A
– SCDA2D15H	0.47~100μH	3.40~0.24A
– SCDA2D18L	1.0~27μH	1.36~0.22A
– SCDA2D18H	1.0~33μH	3.00~0.47A
– SCDA3D12	1.0~33μH	3.00~0.42A
– SCDA3D15	0.5~47μH	3.90~0.34A
– SCDA3D18	1.0~100μH	3.20~0.26A

– Test equipment:

L: HP4284A Precision LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

Product Identification

SCDA	2D15	M	T	L	101
Product Type	Dimensions (AxBxC)	Inductance Tolerance	Packaging Style	Design Code	Inductance
	2D10: 3.2x3.2x1.05 2D15: 3.2x3.2x1.6 2D18: 3.2x3.2x1.8 3D12: 4.2x4.2x1.25 3D15: 4.2x4.2x1.6 3D18: 4.2x4.2x1.8	M: ±20% N: ±30%	T : Tape and Reel	: Standard L: Low Resistance H: High Current	1R1: 1.1μH 470: 47μH 101: 100μH

■ Electrical Characteristics

SCDA2D10 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R2	1.2	N,M	1KHz, 1V	0.070	1.00	1.40	1.50	Black
1R5	1.5	N,M	1KHz, 1V	0.087	1.00	1.36	1.40	Brown
1R8	1.8	N,M	1KHz, 1V	0.097	0.90	1.24	1.35	Red
2R2	2.2	N,M	1KHz, 1V	0.136	0.80	0.97	1.10	Orange
2R7	2.7	N,M	1KHz, 1V	0.127	0.76	0.94	1.10	Yellow
3R3	3.3	N,M	1KHz, 1V	0.175	0.68	0.88	1.00	Green
3R9	3.9	N,M	1KHz, 1V	0.200	0.62	0.84	0.90	Blue
4R7	4.7	N,M	1KHz, 1V	0.274	0.60	0.82	0.85	Violet
5R6	5.6	N,M	1KHz, 1V	0.319	0.54	0.72	0.75	Gray
6R8	6.8	N,M	1KHz, 1V	0.330	0.46	0.60	0.70	White
8R2	8.2	N,M	1KHz, 1V	0.420	0.44	0.58	0.65	Black
100	10	M	1KHz, 1V	0.470	0.42	0.54	0.60	Brown
120	12	M	1KHz, 1V	0.675	0.32	0.44	0.55	Red
150	15	M	1KHz, 1V	0.800	0.30	0.40	0.50	Orange
180	18	M	1KHz, 1V	0.890	0.30	0.38	0.45	Yellow
220	22	M	1KHz, 1V	1.110	0.26	0.32	0.40	Green
270	27	M	1KHz, 1V	1.600	0.24	0.30	0.34	Black
330	33	M	1KHz, 1V	1.600	0.22	0.28	0.34	Blue
470	47	M	1KHz, 1V	2.430	0.18	0.22	0.24	Black

SCDA3D12 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R0	1.0	N,M	1KHz, 1V	0.045	2.30	3.00	2.00	Black
1R2	1.2	N,M	1KHz, 1V	0.048	2.20	2.80	1.90	Brown
1R5	1.5	N,M	1KHz, 1V	0.055	1.90	2.40	1.80	Red
1R8	1.8	N,M	1KHz, 1V	0.073	1.80	2.30	1.75	Orange
2R2	2.2	N,M	1KHz, 1V	0.083	1.70	2.10	1.75	Yellow
2R7	2.7	N,M	1KHz, 1V	0.109	1.40	1.70	1.44	Green
3R3	3.3	N,M	1KHz, 1V	0.118	1.30	1.70	1.40	Blue
3R9	3.9	N,M	1KHz, 1V	0.143	1.26	1.60	1.30	Violet
4R7	4.7	N,M	1KHz, 1V	0.159	1.24	1.58	1.20	Gray
5R6	5.6	N,M	1KHz, 1V	0.213	1.00	1.30	1.00	White
6R8	6.8	N,M	1KHz, 1V	0.224	1.00	1.30	0.96	Black
8R2	8.2	N,M	1KHz, 1V	0.252	0.92	1.14	0.94	Brown
100	10	M	1KHz, 1V	0.327	0.86	1.06	0.90	Red
120	12	M	1KHz, 1V	0.363	0.80	0.98	0.82	Orange
150	15	M	1KHz, 1V	0.516	0.60	0.80	0.64	Yellow
180	18	M	1KHz, 1V	0.625	0.56	0.76	0.60	Green
220	22	M	1KHz, 1V	0.732	0.46	0.64	0.52	Blue
330	33	M	1KHz, 1V	1.165	0.42	0.50	0.42	Violet

■ Electrical Characteristics

SCDA3D15 Type

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
R50	0.5	N	1KHz, 1V	0.035	3.10	3.90	2.50	Black
1R0	1.0	N,M	1KHz, 1V	0.040	2.30	3.00	2.40	Black
1R2	1.2	N,M	1KHz, 1V	0.043	2.20	2.80	2.34	Brown
1R5	1.5	N,M	1KHz, 1V	0.050	2.00	2.60	2.30	Red
1R8	1.8	N,M	1KHz, 1V	0.055	1.66	2.30	2.10	Orange
2R2	2.2	N,M	1KHz, 1V	0.071	1.60	2.20	2.00	Yellow
2R7	2.7	N,M	1KHz, 1V	0.078	1.40	2.00	1.60	Green
3R3	3.3	N,M	1KHz, 1V	0.087	1.34	2.00	1.60	Blue
3R9	3.9	N,M	1KHz, 1V	0.100	1.20	1.80	1.50	Violet
4R7	4.7	N,M	1KHz, 1V	0.137	1.14	1.60	1.40	Gray
5R6	5.6	N,M	1KHz, 1V	0.147	1.06	1.46	1.20	White
6R8	6.8	N,M	1KHz, 1V	0.170	1.00	1.40	1.15	Black
8R2	8.2	N,M	1KHz, 1V	0.195	0.94	1.28	1.10	Brown
100	10	M	1KHz, 1V	0.228	0.90	1.16	1.02	Red
120	12	M	1KHz, 1V	0.275	0.88	1.08	0.90	Orange
150	15	M	1KHz, 1V	0.340	0.64	0.86	0.72	Yellow
180	18	M	1KHz, 1V	0.380	0.60	0.82	0.68	Green
220	22	M	1KHz, 1V	0.495	0.54	0.74	0.65	Blue
270	27	M	1KHz, 1V	0.735	0.50	0.70	0.55	Violet
330	33	M	1KHz, 1V	0.890	0.46	0.58	0.48	Gray
390	39	M	1KHz, 1V	1.000	0.40	0.56	0.42	White
470	47	M	1KHz, 1V	1.150	0.34	0.52	0.35	Black

SCDA3D18 Type

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R0	1.0	N,M	1KHz, 1V	0.038	2.60	3.20	2.40	Black
1R2	1.2	N,M	1KHz, 1V	0.044	2.40	3.00	2.20	Brown
1R5	1.5	N,M	1KHz, 1V	0.050	2.20	2.70	2.20	Red
1R8	1.8	N,M	1KHz, 1V	0.045	1.90	2.40	2.00	Orange
2R2	2.2	N,M	1KHz, 1V	0.062	1.80	2.20	1.90	Yellow
2R7	2.7	N,M	1KHz, 1V	0.068	1.70	2.10	1.80	Green
3R3	3.3	N,M	1KHz, 1V	0.080	1.50	1.88	1.65	Blue
3R9	3.9	N,M	1KHz, 1V	0.084	1.40	1.80	1.56	Violet
4R7	4.7	N,M	1KHz, 1V	0.099	1.22	1.46	1.40	Gray
5R6	5.6	N,M	1KHz, 1V	0.110	1.16	1.48	1.30	White
6R8	6.8	N,M	1KHz, 1V	0.128	1.02	1.26	1.20	Black
8R2	8.2	N,M	1KHz, 1V	0.146	1.000	1.24	1.15	Brown
100	10	M	1KHz, 1V	0.165	0.90	1.10	1.05	Red
120	12	M	1KHz, 1V	0.254	0.84	1.00	0.80	Orange
150	15	M	1KHz, 1V	0.320	0.74	0.88	0.72	Yellow
180	18	M	1KHz, 1V	0.360	0.70	0.84	0.68	Green
220	22	M	1KHz, 1V	0.418	0.60	0.74	0.65	Blue
270	27	M	1KHz, 1V	0.450	0.56	0.70	0.60	Violet
330	33	M	1KHz, 1V	0.620	0.46	0.58	0.58	Gray
390	39	M	1KHz, 1V	0.650	0.45	0.56	0.48	White
470	47	M	1KHz, 1V	0.790	0.43	0.52	0.45	Black
560	56	M	1KHz, 1V	0.862	0.38	0.48	0.40	Brown
680	68	M	1KHz, 1V	1.000	0.30	0.40	0.36	Red
101	100	M	1KHz, 1V	1.380	0.26	0.32	0.36	Yellow

Low Resistance Electrical Characteristics

SCDA2D15 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R0	1.0	N,M	1KHz, 1V	0.038	1.04	1.40	1.80	Green
1R2	1.2	N,M	1KHz, 1V	0.041	1.00	1.30	1.74	Blue
1R5	1.5	N,M	1KHz, 1V	0.046	0.94	1.22	1.70	Violet
1R8	1.8	N,M	1KHz, 1V	0.058	0.92	1.16	1.64	Gray
2R2	2.2	N,M	1KHz, 1V	0.066	0.88	1.10	1.60	White
2R7	2.7	N,M	1KHz, 1V	0.070	0.74	0.93	1.45	Green
3R3	3.3	N,M	1KHz, 1V	0.091	0.68	0.90	1.24	Blue
3R9	3.9	N,M	1KHz, 1V	0.115	0.62	0.82	1.12	Violet
4R7	4.7	N,M	1KHz, 1V	0.132	0.60	0.74	1.10	Gray
5R6	5.6	N,M	1KHz, 1V	0.156	0.58	0.70	1.06	White
6R8	6.8	N,M	1KHz, 1V	0.166	0.42	0.62	1.00	Green
8R2	8.2	N,M	1KHz, 1V	0.230	0.40	0.58	0.90	Blue
100	10	M	1KHz, 1V	0.244	0.38	0.50	0.80	Violet
120	12	M	1KHz, 1V	0.324	0.36	0.44	0.70	Gray
150	15	M	1KHz, 1V	0.370	0.36	0.42	0.70	White
180	18	M	1KHz, 1V	0.489	0.30	0.38	0.62	Green

SCDA2D18 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R0	1.0	N,M	1KHz, 1V	0.038	0.96	1.36	1.80	Green
1R2	1.2	N,M	1KHz, 1V	0.041	0.94	1.22	1.76	Blue
1R5	1.5	N,M	1KHz, 1V	0.048	0.90	1.14	1.70	Violet
1R8	1.8	N,M	1KHz, 1V	0.052	0.84	1.04	1.68	Gray
2R2	2.2	N,M	1KHz, 1V	0.055	0.75	0.95	1.64	White
2R7	2.7	N,M	1KHz, 1V	0.060	0.68	0.90	1.46	Green
3R3	3.3	N,M	1KHz, 1V	0.078	0.60	0.80	1.40	Blue
3R9	3.9	N,M	1KHz, 1V	0.090	0.58	0.80	1.22	Violet
4R7	4.7	N,M	1KHz, 1V	0.099	0.54	0.74	1.20	Gray
5R6	5.6	N,M	1KHz, 1V	0.110	0.50	0.66	1.12	White
6R8	6.8	N,M	1KHz, 1V	0.120	0.48	0.60	1.06	Green
8R2	8.2	N,M	1KHz, 1V	0.168	0.40	0.54	0.90	Blue
100	10	M	1KHz, 1V	0.190	0.36	0.46	0.88	Violet
120	12	M	1KHz, 1V	0.222	0.32	0.46	0.80	Gray
150	15	M	1KHz, 1V	0.285	0.30	0.40	0.72	White
180	18	M	1KHz, 1V	0.350	0.28	0.38	0.66	Green
220	22	M	1KHz, 1V	0.440	0.24	0.32	0.50	Blue
270	27	M	1KHz, 1V	0.490	0.22	0.28	0.42	Violet

High Current Electrical Characteristics

SCDA2D15 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
R47	0.47	N,M	1KHz, 1V	0.040	3.00	3.40	2.20	Black
1R0	1.0	N,M	1KHz, 1V	0.049	2.60	3.00	2.00	Black
1R2	1.2	N,M	1KHz, 1V	0.083	2.30	2.50	1.90	Brown
1R5	1.5	N,M	1KHz, 1V	0.090	2.10	2.50	1.50	Brown
2R2	2.2	N,M	1KHz, 1V	0.090	1.80	2.10	1.28	Red
3R3	3.3	N,M	1KHz, 1V	0.149	1.50	1.72	1.10	Orange
3R9	3.9	N,M	1KHz, 1V	0.158	1.40	1.56	1.02	Yellow
4R7	4.7	N,M	1KHz, 1V	0.197	1.30	1.50	0.96	Black
5R6	5.6	N,M	1KHz, 1V	0.232	1.20	1.30	0.94	Black
6R8	6.8	N,M	1KHz, 1V	0.266	1.10	1.30	0.84	Brown
100	10	M	1KHz, 1V	0.403	0.94	1.10	0.74	Red
150	15	M	1KHz, 1V	0.567	0.76	0.86	0.60	Orange
220	22	M	1KHz, 1V	0.905	0.60	0.68	0.46	Yellow
330	33	M	1KHz, 1V	1.486	0.44	0.48	0.40	Black
470	47	M	1KHz, 1V	1.814	0.40	0.44	0.26	Brown
680	68	M	1KHz, 1V	3.520	0.29	0.33	0.26	Orange
101	100	M	1KHz, 1V	3.840	0.24	0.28	0.24	Black

SCDA2D18 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Typ.	IDC (A) Typ.		I rms (A) Typ.	Color Code
					L drop 10%	L drop 35%		
1R0	1.0	N,M	1KHz, 1V	0.045	2.60	3.00	2.00	Black
1R8	1.8	N,M	1KHz, 1V	0.078	2.00	2.30	1.76	Brown
2R2	2.2	N,M	1KHz, 1V	0.090	1.80	2.14	1.44	Red
3R3	3.3	N,M	1KHz, 1V	0.103	1.50	1.80	1.10	Orange
3R9	3.9	N,M	1KHz, 1V	0.115	1.50	1.78	1.05	Yellow
4R7	4.7	N,M	1KHz, 1V	0.152	1.40	1.60	1.00	Black
6R8	6.8	N,M	1KHz, 1V	0.223	1.20	1.40	0.95	Brown
100	10	M	1KHz, 1V	0.360	0.92	1.02	0.78	Red
120	12	M	1KHz, 1V	0.410	0.84	0.98	0.68	Orange
150	15	M	1KHz, 1V	0.622	0.80	0.90	0.62	Yellow
220	22	M	1KHz, 1V	0.750	0.64	0.74	0.45	Black
330	33	M	1KHz, 1V	1.125	0.47	0.52	0.42	Brown