Shielded SMD Power Inductor-SCDS

Applications

- Power supply for VTRs
- OA equipment.
- Notebook PCs
- Portable communication equipment
- DC/DC converters, etc

Features

- Small size with the electrode attached to the ferrite core directly.
- Available in magnetically shielded.
- Low DC resistance.
- Suitable for large current.
- Available on tape and reel for auto surface mounting.

Inductance and rated current ranges

- SCDS2D09 1.2～10μH 0.80～0.28A
- SCDS2D11 1.0～47μH 1.00～0.14A
- SCDS2D14 1.5～27μH 1.80～0.32A
- SCDS2D18 2.2～47μH 0.82～0.20A
- SCDS3D18 1.5～220μH 1.55～0.13A
- SCDS4D18 1.0～180μH 1.72～0.12A
- SCDS4D28 1.2～180μH 2.56～0.22A
- SCDS5D18 4.1～100μH 1.95～0.36A
- SCDS5D28 2.6～100μH 2.60～0.42A
- SCDS6D28 3.0～100μH 3.00～0.54A
- SCDS6D38 3.3～100μH 3.50～0.65A
- Test equipment:

  L: HP4284A Precision LCR meter.

  DCR: Milli-ohm meter.

  Electrical Specification at 25℃

Product Identification

SCDS 5D28 N T 101

(1) (2) (3) (4) (5)

(1)Type: SMD Power Inductors

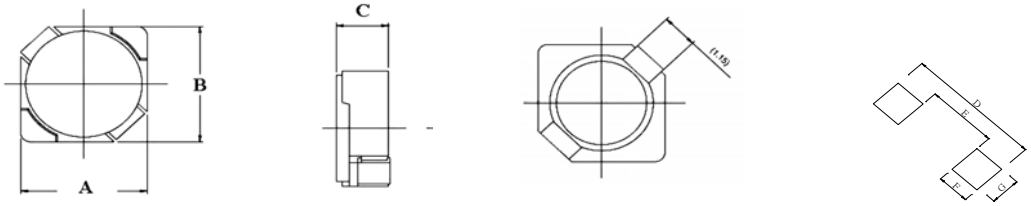
(2)Dimensions (mm): 5D is 5.7mm square and 28 is about 2.8mm height.

(3)Tolerance: N=30%.

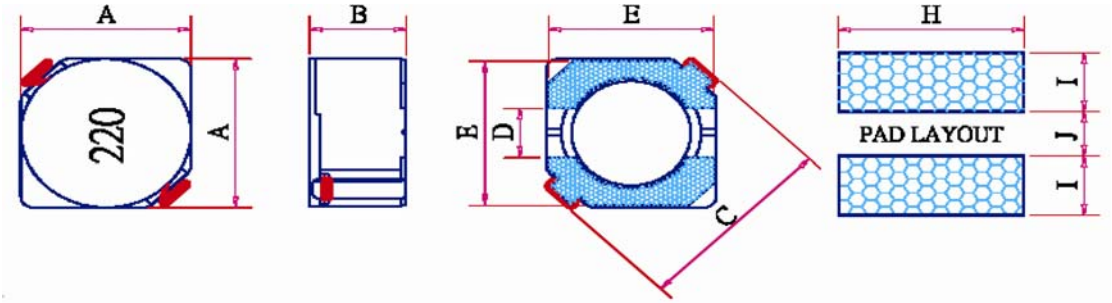
(4) Packaging style: T (Tape and Reel)

(5) Inductance:1R1=1.1μH, 470=47μH, 101 =100μH

Dimension



Codes	A	B	C(Max)	D	E	F	G
SCDS2D09	3.2±0.3	3.2±0.3	1.0	4.3	1.7	1.3	1.3
SCDS2D11	3.2±0.3	3.2±0.3	1.2	4.3	1.7	1.3	1.3
SCDS2D14	3.2±0.3	3.2±0.3	1.6	4.3	1.7	1.3	1.3
SCDS2D18	3.2±0.3	3.2±0.3	2.0	4.3	1.7	1.3	1.3



Unit: mm

Codes	A	B	C	D	E	H	I	J
SCDS3D18	3.8±0.3	1.8Max	5.2Max	1.15	3.6	4.1	1.60	1.2
SCDS4D18	4.7±0.3	2.0Max	6.9Max	1.5	4.5	5.3	1.90	1.5
SCDS4D28	4.7±0.3	3.0Max	6.9Max	1.5	4.5	5.3	1.90	1.5
SCDS5D18	5.7±0.3	2.0Max	8.2Max	2.0	5.5	6.3	2.15	2.0
SCDS5D28	5.7±0.3	3.0Max	8.2Max	2.0	5.5	6.3	2.15	2.0
SCDS6D28	6.7±0.3	3.0Max	9.5Max	2.0	6.5	7.3	2.65	2.0
SCDS6D38	6.7±0.3	4.0Max	9.5Max	2.0	6.5	7.3	2.65	2.0

Electrical Characteristics

SCDS 2D09 / 2D11 / 2D14 / 2D18 / 3D18 TYPE

Part No.	L (μH)	Tol. (%)	DC Resistance (Ω)Max					Rated DC Current (A) Max				
			2D09	2D11	2D14	2D18	3D18	2D09	2D11	2D14	2D18	3D18
1R0	1.0	N	-	0.060	-	-	-	-	1.00	-	-	-
1R2	1.2	N	0.0975			-		0.80			-	
1R5	1.5	N	0.1100	0.068	0.063	-	0.056	0.73	0.90	1.80	-	1.55
1R8	1.8	N	0.1313	-	0.075	-	-	0.65	-	1.65	-	-
2R2	2.2	N	0.1438	0.098	0.094	0.041	0.072	0.60	0.78	1.50	0.85	1.20
2R7	2.7	N	0.1500	-	0.106	-	-	0.53	-	1.35	-	-
3R3	3.3	N	0.1938	0.123	0.125	0.054	0.085	0.47	0.60	1.20	0.75	1.00
3R9	3.9	N	0.2250	-	0.138	-	-	0.45	-	1.10	-	-
4R7	4.7	N	0.2875	0.170	0.185	0.078	0.105	0.41	0.50	1.00	0.63	0.90
5R6	5.6	N	0.3250	-	0.220	-	-	0.37	-	0.95	-	-
6R8	6.8	N	0.4250	0.260	0.250	0.106	0.170	0.33	0.44	0.85	0.52	0.73
8R2	8.2	N	0.4750	-	0.281	-	-	0.30	-	0.80	-	-
100	10	N	0.5375	0.400	0.318	0.180	0.210	0.28	0.35	0.70	0.43	0.55
120	12	N	-	-	0.438	-	-	-	-	0.62	-	-
150	15	N	-	0.600	0.520	0.220	0.295	-	0.28	0.55	0.35	0.45
220	22	N	-	0.800	0.650	0.320	0.430	-	0.20	0.48	0.30	0.40
270	27	N		-	1.200		0.557	-	-	0.32	-	0.38
330	33	N	-	1.300	-	0.460	0.675	-	0.16	-	0.24	0.32
470	47	N	-	2.300	-	0.660	0.900	-	0.14	-	0.20	0.21
560	56	N	-	-	-	-	1.330	-	-	-		0.22
101	100	N	-	-	-	-	2.600	-	-	-		0.16
221	220	N	-	-	-	-	4.770	-	-	-		0.13

Note: 1. Test Frequency 100 kHz 0.1Vrms.

2. Rated DC Current: 2D09 / 2D11 / 3D18 The current when the inductance decrease to 65% of its initial value.(Ta=25℃)

2D18 The current when the inductance decrease to 70% of its initial value.(Ta=25℃)

3.Operating temperature range -40～105℃.

Electrical Characteristics

SCDS 4D18 / 4D28 / 5D18 / 5D28 / 6D28 / 6D38 TYPE

Part No.	L (μH)	Tol. (%)	DC Resistance (mΩ)Max						Rated DC Current (A) Max					
			4D18	4D28	5D18	5D28	6D28	6D38	4D18	4D28	5D18	5D28	6D28	6D38
1R0	1.0	N	45	-	-	-	-	-	1.72	-	-	-	-	-
1R2	1.2	N	-	23.6	-	-	-	-	-	2.56	-	-	-	-
1R8	1.8	N	-	27.5	-	-	-	-	-	2.20	-	-	-	-
2R2	2.2	N	75	31.3	-	-	-	-	1.32	2.04	-	-	-	-
2R6	2.6	N	-	-	-	18	-	-	-	-	-	2.60	-	-
2R7	2.7	N	105	43.3	-	-	-	-	1.28	1.60	-	-	-	-
3R0	3.0	N	-	-	-	24	24	-	-	-	-	2.40	3.00	-
3R3	3.3	N	110	49.2	-	-	-	20	1.04	1.57	-	-	-	3.50
3R9	3.9	N	155	64.8	-	-	27	-	0.88	1.44	-	-	2.60	-
4R1	4.1	N	-	-	57	-	-	-	-	-	1.95	-	-	-
4R2	4.2	N	-	-	-	31	-	-	-	-	-	2.20	-	-
4R7	4.7	N	162	72.0	-	-	-	-	0.84	1.32	-	-	-	-
5R0	5.0	N	-	-	-	-	31	24	-	-	-	-	2.40	2.90
5R3	5.3	N	-	-	-	38	-	-	-	-	-	1.90	-	-
5R4	5.4	N	-	-	76	-	-	-	-	-	1.60	-	-	-
5R6	5.6	N	170	100.9	-	-	-	-	0.80	1.17	-	-	-	-
6R0	6.0	N	-	-	-	-	35	-	-	-	-	-	2.25	-
6R2	6.2	N	-	-	96	45	-	27	-	-	1.40	1.80	-	2.50
6R8	6.8	N	200	108.9	-	-	-	-	0.76	1.12	-	-	-	-
7R3	7.3	N	-	-	-	-	54	-	-	-	-	-	2.10	-
7R4	7.4	N	-	-	-	-	-	31	-	-	-	-	-	2.30
8R2	8.2	N	245	117.5	-	53	-	-	0.68	1.04	-	1.60	-	-
8R6	8.6	N	-	-	-	-	58	-	-	-	-	-	1.85	-
8R7	8.7	N	-	-	-	-	-	34	-	-	-	-	-	2.20
8R9	8.9	N	-	-	116	-	-	-	-	-	1.25	-	-	-
100	10	N	200	128.3	124	65	65	38	0.61	1.00	1.20	1.30	1.70	2.00
120	12	N	210	131.6	153	76	70	53	0.56	0.84	1.10	1.20	1.55	1.70
150	15	N	240	149.0	196	103	84	57	0.50	0.76	0.97	1.10	1.40	1.60
180	18	N	338	166.0	210	110	95	92	0.48	0.72	0.85	1.00	1.32	1.50
220	22	N	397	235.0	290	122	128	96	0.41	0.70	0.80	0.90	1.20	1.30
270	27	N	441	261.0	330	175	142	109	0.35	0.58	0.75	0.85	1.05	1.20
330	33	N	694	378.0	386	189	165	124	0.32	0.56	0.65	0.75	0.97	1.10
390	39	N	709	383.7	520	212	210	138	0.30	0.50	0.57	0.70	0.86	1.00
470	47	N	1000	587.0	595	260	238	155	0.20	0.48	0.54	0.62	0.80	0.95
560	56	N	1100	624.5	665	305	277	202	0.28	0.41	0.50	0.58	0.73	0.85
680	68	N	1350	699.0	840	355	304	234	0.25	0.35	0.43	0.52	0.65	0.75
820	82	N	1650	914.8	978	463	390	324	0.22	0.32	0.41	0.46	0.60	0.70
101	100	N	2200	1020	1200	520	535	358	0.20	0.29	0.36	0.42	0.54	0.65
121	120	N	2450	1270	-	-	-	-	0.17	0.27	-	-	-	-
151	150	N	3000	1350	-	-	-	-	0.15	0.24	-	-	-	-
181	180	N	3000	1540	-	-	-	-	0.12	0.22	-	-	-	-

Note: 1. Test Frequency

4D18 : 1.0uH~8.2uH @ 7.96 0.1V 8.6uH~180uH @ 100KHz 0.1V

4D28 : 100kHz 0.1V

5D18 / 5D28 / 6D28 / 6D38 :10kHz 0.1V

2. Rated DC Current: The current when the inductance decrease to 65% of its initial value or the current when the temperature of coil increases to △40℃. The smaller one is defined as Rated DC Current. (Ta=25℃)

3.Operating temperature range -20～80℃.