

Shielded SMD Power Inductor- PSDB



Applications

- Power supply for VTRs
- LCD televisions
- Notebook PCs
- Portable communication
- DC/DC converters, etc

Features

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

Inductance and rated current ranges

- | | | |
|------------|-----------|------------|
| • PSDB5D28 | 2.5~100μH | 2.6~0.4A |
| • PSDB1003 | 10~150μH | 2.7~0.7A |
| • PSDB1004 | 1.3~330μH | 10~0.7A |
| • PSDB1005 | 10~1000μH | 3.45~0.35A |

Product Identification

PSDB 5D28 M I 101

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

(1)Type: SMD Power Inductors

(2)Dimensions (mm): 5D28=6.2×6.3×3.0, 1003=10.3×10.4×3.0, 1004=10.3×10.4×4.0, 1005=10.3×10.4×5.0

(3)Tolerance: N=30%

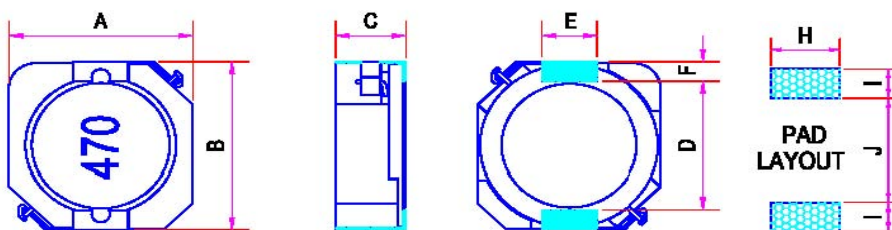
(4) Packaging style: T (Tape and Reel)

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

Characteristics:

- Rated DC current: The current when the inductance decreases to 75% (5D28 and 1004 decreases to 65%) of its initial value or the actual current when the temperature of coil increases to $\Delta 40^{\circ}\text{C}$. The smaller one is defined as Rated DC Current. (Ta=25°C)
- Operating temperature range: -30~80°C.

Dimension



Unit: mm

Codes	A	B	C	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	3.0	7.7	3.0	1.2	3.6	1.7	7.3
PSDB1004	10.3	10.4	4.0	7.7	3.0	1.2	3.6	1.7	7.3
PSDB1005	10.3	10.4	5.0	7.7	3.0	1.2	3.6	1.7	7.3

Electrical Characteristics

PSDB 5D28 / 1003 / 1004 / 1005 TYPE

Part No.	L (μH)	Tol. (%)	DC Resistance (mΩ)Max				Rated DC Current (A) Max			
			5D28	1003	1004	1005	5D28	1003	1004	1005
1R3	1.3	N	-	-	8.1	-	-	-	10.0	-
2R5	2.5	N	17.6	-	10	-	2.60	-	7.50	-
3R3	3.3	N	20.3	-	-	-	2.30	-	-	-
3R8	3.8	N	-	-	13	-	-	-	6.00	-
4R0	4.0	N	27.0	-	-	-	2.10	-	-	-
5R0	5.0	N	31.1	-	-	-	1.85	-	-	-
5R2	5.2	N	-	-	22	-	-	-	5.50	-
6R0	6.0	N	41.9	-	-	-	1.70	-	-	-
7R0	7.0	N	-	-	27	-	-	-	4.80	-
8R0	8.0	N	49.9	-	-	-	1.50	-	-	-
100	10	N	54.0	58.1	35	25.8	1.30	2.70	4.40	3.45
120	12	N	71.6	72.1	-	32.0	1.20	2.25	-	3.40
150	15	N	82.4	86.5	50	40.0	1.10	2.22	3.60	2.83
180	18	N	101.5	116.1	-	46.0	1.05	1.90	-	2.62
220	22	N	119.0	145.4	73	58.5	0.95	1.78	2.90	2.44
270	27	N	146.0	175.9	-	65.4	0.85	1.63	-	2.24
330	33	N	182.5	213.4	93	81.4	0.76	1.16	2.30	1.88
390	39	N	209.5	268.9	-	103.1	0.68	1.32	-	1.70
470	47	N	229.5	298.6	128	122.1	0.60	1.18	2.10	1.56
560	56	N	305.0	335.8	-	144.8	0.55	1.10	-	1.39
680	68	N	351.0	451.3	213	193.0	0.48	1.04	1.50	1.36
820	82	N	418.5	513.8	-	219.4	0.45	0.94	-	1.20
101	100	N	520.0	700.0	304	247.0	0.40	0.84	1.35	1.09
121	120	N	-	765.0	-	298.4	-	0.76	-	1.00
151	150	N	-	876.3	506	355.1	-	0.70	1.15	0.91
181	180	N	-	-	-	393.4	-	-	-	0.84
221	220	N	-	-	756	483.8	-	-	0.92	0.75
271	270	N	-	-	-	632.5	-	-	-	0.68
331	330	N	-	-	1090	780.0	-	-	0.70	0.60
391	390	N	-	-	-	957.5	-	-	-	0.57
471	470	N	-	-	-	1220.4	-	-	-	0.50
561	560	N	-	-	-	1352.4	-	-	-	0.47
681	680	N	-	-	-	1519.2	-	-	-	0.43
821	820	N	-	-	-	1694.4	-	-	-	0.39
102	1000	N	-	-	-	1946.4	-	-	-	0.35

Notes:

Test equipment: HP4284A LCR meter
 Measuring Frequency: 100KHz 0.1V
 DCR: Milli-ohm meter.
 Electrical Specification at 25°C