

**TSD Series ( Rev. 1.0 )**



**Features**

- \* RoHS compliant
- \* Available in magnetic shielding
- \* Low DC resistance
- \* Suitable for large currents
- \* Ideal for DC-DC converter inductor applications

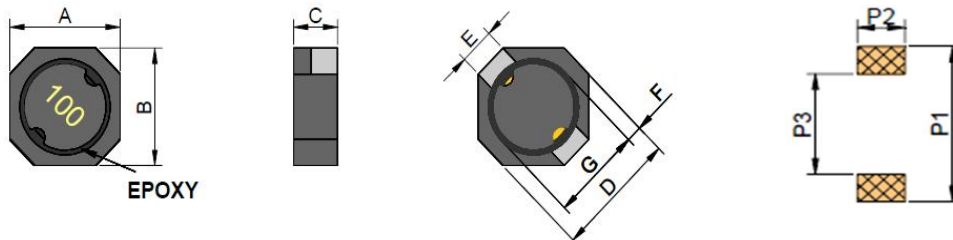
**Product Identification**

TSD
53
-
100
M

1
2
3
4

1. Product Code
2. Size Code
3. Inductance: 10uH
4. Tolerance: M=±20%, N=±30%

**Dimension & Recommended PAD Layout: [ mm ]**



Size Code	A(ref.)	B(ref.)	C(ref.)	D(±0.3)	E(ref.)	F(ref.)	G(ref.)	P1	P2	P3
31	3.85	3.85	1.3	3.8	1.6	0.5	3.2	4.9	1.7	2.5
32	3.85	3.85	2.0	4.1	1.6	0.5	3.2	4.9	1.7	2.5
33	3.85	3.85	3.0	3.9	1.6	0.5	3.2	4.9	1.7	2.5
52	5.00	5.00	2.0	5.5	1.6	0.5	4.2	6.5	1.8	3.4
53	5.00	5.00	3.0	5.5	1.6	0.5	4.2	6.5	1.8	3.4

**Applications**

- \* DC/DC converters, etc
- \* Power supply for VTRs
- \* OA equipment
- \* LCD televisions/ Notebook PCs
- \* Portable communication devices

**Operating & Storage Condition**

- \* Operating Temp :Stand Type:-40 to +105°C
- \* Storage Temp : Stand Type:-40 to +105°C
- \* Storage Life Time :12 Months @25°C,RH 65%

**Test Equipment**

- \* HP4284A,HP42841A-L,IDC,Q,RDC
- \* HP8753D Network Analyzer-SRF

**Standard Atmospheric Conditions**

- \* Ambient Temp : 20+/-15°C
- \* Relative Humidity : 65+/-20%



## TSD Series ( Rev. 1.0 )

## Electrical Characteristics

L Code	L (uH)	Tolerance (±%)	DCR (mΩ) max. / IDC (A) max.											
			31		32		33		33H		52		53	
R47N	0.47	30			17	1.84					15	2.33		
1R0N	1.00	30	60	1.60	30	1.80	9	1.90			24	2.27	15	4.00
1R2N	1.20	30	65	1.40	83	1.70	10	1.75			44	2.15	22	3.80
1R5N	1.50	30	77	1.24	52	1.60	13	1.45	15	1.90			22	3.80
1R8N	1.80	30	93	1.22	56	1.55			18	1.76				
2R0N	2.00	30					16	1.25			46	1.90	27	2.92
2R2N	2.20	30	125	1.20	58	1.50	17	1.15			59	1.63	29	2.41
2R4N	2.40	30	139	0.98			22	1.65						
2R5N	2.50	30			59	1.40	18	1.05						
2R7N	2.70	30			60	1.35	20	1.00	28	1.45				
3R3N	3.30	30	187	0.89	64	1.30	24	0.96	32	1.44	62	1.50	34	2.36
3R5N	3.50	30	210	0.85	127	1.30	25	0.95			73	1.34		
3R6N	3.60	30							35	1.43				
3R9N	3.90	30	220	0.78			33	0.87	37	1.32				
4R3N	4.30	30							43	1.00				
4R7N	4.70	30	240	0.71	146	11.00	39	0.78	45	0.97	87	1.14	45	1.87
5R1N	5.10	30							46	0.94				
5R6N	5.60	30	320	0.62	176	0.95	44	0.74					52	1.60
6R2N	6.20	30			220	0.91							62	1.55
6R8N	6.80	30	350	0.57	238	0.90	51	0.68	65	0.87	105	0.95	68	1.51
8R2N	8.20	30	470	0.52	272	0.80	65	0.57	91	0.77	139	0.90	75	1.40
100M	10.00	20	570	0.47	299	0.70	92	0.43	105	0.70	150	0.76	90	1.33
120M	12.00	20	750	0.43	355	0.65	100	0.38	119	0.67			100	1.15
150M	15.00	20	810	0.38	472	0.61	113	0.33	140	0.54	210	0.63	142	1.05
180M	18.00	20	1060	0.35	500	0.58	125	0.30	175	0.50			162	0.95
220M	22.00	20	1150	0.32	592	0.52	146	0.28	201	0.48	275	0.56	208	0.86
270M	27.00	20	1670	0.29	630	0.44	176	0.26	227	0.40			238	0.80
330M	33.00	20	1840	0.28	1075	0.43	214	0.23	287	0.35	455	0.44	257	0.72
390M	39.00	20	2310	0.25			225	0.21	341	0.33			320	0.65
470M	47.00	20	2630	0.22	1309	0.34	304	0.19	430	0.32	730	0.35	352	0.62
560M	56.00	20	2860	0.20	1800	0.30	324	0.17	471	0.30			500	0.62
680M	68.00	20	3940	0.18	2316	0.25	472	0.16	532	0.27	935	0.30	525	0.51
820M	82.00	20	4900	0.16	2950	0.20	539	0.14	675	0.23			770	0.48
101M	100.00	20	5740	0.14	3255	0.19	608	0.13	850	0.21	1500	0.23	801	0.43
121M	120.00	20	7310	0.13	3350	0.15	757	0.12	1100	0.20	1910	0.22	850	0.34
151M	150.00	20	9080	0.12	3500	0.12	882	0.11	1230	0.17	2680	0.21	1100	0.26
181M	180.00	20	9500	0.11	4000	0.11	1130	0.09	1560	0.15	3040	0.20	1190	0.24
221M	220.00	20			4800	0.10	1269	0.09	1800	0.14	3520	0.20	1530	0.20
271M	270.00	20			5100	0.09	1570	0.08	2200	0.13	4380	0.19	1960	0.19
331M	330.00	20			7280	0.08	1930	0.08	2640	0.12	5560	0.19	2030	0.19

\* Test Condition: 0.47-8.2uH @100KHz/ 0.25V; 10uH and above @1KHz/ 0.25V.

\* Irms DC current (A) that will cause an approximate ΔT of 40°C

\* Isat DC current (A) that will cause L to drop approximately 25%

\* Tolerance: M= ±20%, N= ±30%

