

Shielded SMD Power Inductor-PCDR



Applications

- Portable telephones.
- Personal computers.
- DC/DC converters, etc.
- Other various electronic appliances.

Features

- Compact, low profile with low Rdc and large current.
- With magnetic shielded against radiation.
- Flat bottom surface allows reliable mounting onto the board.
- Available on tape and reel for auto surface mounting.

Inductance and rated current ranges

- | | | |
|------------|------------|-----------|
| ● PCDR0628 | 4.7~100μH | 1.6~0.42A |
| ● PCDR0728 | 3.3~47μH | 1.6~0.54A |
| ● PCDR0730 | 3.3~100μH | 1.8~0.35A |
| ● PCDR0732 | 3.3~1000μH | 1.9~0.13A |
| ● PCDR0745 | 3.3~1000μH | 2.3~0.14A |
| ● PCDR1045 | 10~1500μH | 2.5~0.22A |
| ● PCDR1255 | 6.0~1500μH | 3.6~0.29A |
| ● PCDR1265 | 2.0~220μH | 6.2~1.00A |
| ● PCDR1275 | 1.2~220μH | 8.2~1.30A |

- Test equipment:

L: HP4284A LCR meter @1kHz 0.5V

DCR: Milli-ohm meter.

Electrical specification at 25°C.

Product Identification

PCDR 0628 M I 101

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

(1)Type: SMD Power Inductors

(2)Dimensions(mm): 0628=6.0×2.8, 0728=7.0×2.8, 0730=7.0×3.0

0732=7.0×3.2, 0745=7.0×4.5, 1045=10.1×4.5

1255=12.5×5.5, 1265=12.5×6.5, 1275=12.5×7.5

(3)Tolerance: M=20%, N=30%

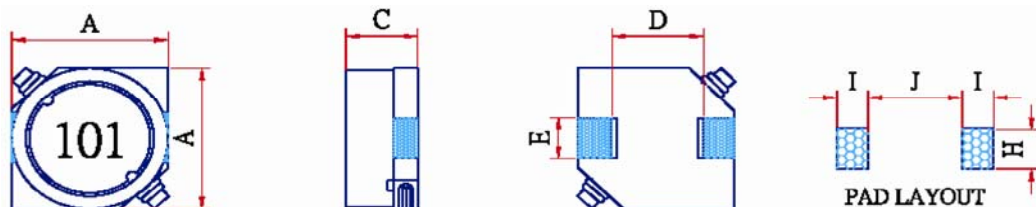
(4) Packaging style: T (Tape and Reel)

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

Characteristics:

- Saturation Rated Current (I sat): 0728~1275 The current when the inductance becomes 90% (0628 becomes 70%) of its nominal value. (Ta=25°C)
- Temperature Rated Current (I rms): The actual current when the temperature of coil becomes to $\Delta 40^{\circ}\text{C}$. (Ta=25°C)
- Operating temperature range: -20~80°C.

Dimension



Unit: mm

Codes	A	C	D	E	H	I	J
PCDR0628	6.0±0.20	2.8±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0728	7.0±0.20	2.8±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0730	7.0±0.20	3.0±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0732	7.0±0.20	3.2±0.20	4.00	2.00	2.20	1.50	4.00
PCDR0745	7.0±0.20	4.5±0.30	4.00	2.00	2.20	1.50	4.00
PCDR1045	10.1±0.30	4.5±0.30	6.00	3.00	3.20	2.50	5.60
PCDR1255	12.5±0.30	5.5±0.35	8.60	3.00	3.20	2.50	8.60
PCDR1265	12.5±0.30	6.5±0.35	8.60	3.00	3.20	2.50	8.60
PCDR1275	12.5±0.30	7.5±0.35	8.60	3.00	3.20	2.50	8.60

Electrical Characteristics

PCDR 0628 / 0728 / 0730 TYPE

Part No.	Tol.	L (μH)	DC Resistance (Ω)±20%			Rated DC Current (A) Max					
						I sat			I rms		
			0628	0728	0730	0628	0728	0730	0628	0728	0730
3R3	M	3.3	-	0.037	0.023	-	1.60	1.80	-	1.60	1.80
4R7	M	4.7	0.036	0.045	0.036	1.60	1.50	1.60	2.50	1.50	1.60
6R8	M	6.8	0.052	0.059	0.041	1.50	1.30	1.50	2.20	1.30	1.50
100	M	10	0.068	0.083	0.053	1.30	1.10	1.30	1.80	1.10	1.30
150	M	15	0.100	0.130	0.084	1.00	0.88	1.00	1.40	0.88	1.00
220	M	22	0.120	0.180	0.110	0.77	0.75	0.86	1.30	0.75	0.86
330	M	33	0.180	0.240	0.160	0.69	0.65	0.65	1.10	0.65	0.65
470	M	47	0.270	0.340	0.240	0.59	0.54	0.57	0.92	0.54	0.57
680	M	68	0.390	-	0.310	0.50	-	0.49	0.78	-	0.49
101	M	100	0.620	-	0.450	0.42	-	0.35	0.64	-	0.35

PCDR 0732 / 0745 / 1045 TYPE

Part No.	Tol.	L (μH)	DC Resistance (Ω)±20%			Rated DC Current (A) Max					
						I sat			I rms		
			0732	0745	1045	0732	0745	1045	0732	0745	1045
3R3	M	3.3	0.023	0.020	-	1.90	2.50	-	1.90	2.30	-
4R7	M	4.7	0.036	0.030	-	1.70	2.00	-	1.70	2.10	-
6R8	M	6.8	0.041	0.039	-	1.60	1.70	-	1.60	1.74	-
100	M	10	0.053	0.036	0.036	1.40	1.30	3.00	1.40	1.78	2.50
150	M	15	0.075	0.052	0.047	1.10	1.10	2.40	1.10	1.53	2.20
220	M	22	0.110	0.061	0.059	0.96	0.90	2.10	0.96	1.34	1.90
330	M	33	0.160	0.096	0.082	0.75	0.82	1.60	0.75	1.09	1.70
470	M	47	0.240	0.125	0.100	0.67	0.75	1.40	0.67	0.92	1.50
680	M	68	0.310	0.175	0.140	0.59	0.60	1.20	0.59	0.77	1.30
101	M	100	0.450	0.250	0.200	0.45	0.50	1.00	0.45	0.65	1.10
151	M	150	0.650	0.340	0.350	0.37	0.40	0.79	0.37	0.55	0.81
221	M	220	1.050	0.520	0.470	0.29	0.33	0.65	0.29	0.45	0.70
331	M	330	1.670	0.740	0.680	0.22	0.25	0.54	0.22	0.37	0.58
471	M	470	2.050	1.050	1.030	0.20	0.22	0.47	0.20	0.31	0.47
681	M	680	3.150	1.480	1.600	0.16	0.20	0.38	0.16	0.27	0.38
102	M	1000	4.780	2.280	2.800	0.13	0.14	0.32	0.13	0.25	0.29
152	M	1500	-	-	3.400	-	-	0.22	-	-	0.26

Electrical Characteristics

PCDR 1255 / 1265 / 1275 TYPE

Part No.	Tol.	L (μH)	DC Resistance (mΩ)±20%			Rated DC Current (A) Max					
						I sat			I rms		
			1255	1265	1275	1255	1265	1275	1255	1265	1275
1R2	N	1.2	-	-	6.9	-	-	13.00	-	-	8.20
2R0	N	2.0	-	11.7	-	-	10.0	-	-	6.20	-
2R7	N	2.7	-	-	9.4	-	-	10.00	-	-	7.00
3R9	N	3.9	-	-	10.4	-	-	9.00	-	-	6.70
4R2	N	4.2	-	15.0	-	-	7.30	-	-	5.50	-
5R6	N	5.6	-	-	11.6	-	-	7.80	-	-	6.30
6R0	N	6.0	16.4	-	-	3.60	-	-	4.90	-	-
6R8	N	6.8	-	-	13.1	-	-	7.20	-	-	5.90
7R0	M	7.0	-	17.7	-	-	5.70	-	-	5.00	-
100	M	10	21.5	20.2	15.6	3.40	5.00	5.50	4.30	4.80	5.40
150	M	15	25.9	23.7	18.4	2.80	4.20	4.70	3.90	4.40	5.00
220	M	22	33.8	31.6	26.3	2.30	3.50	4.00	3.40	3.80	4.00
330	M	33	41.5	40.6	39.5	1.90	2.80	3.20	3.10	3.40	3.40
470	M	47	61.8	57.8	52.8	1.60	2.40	2.70	2.50	2.80	3.00
680	M	68	83.2	78.7	77.8	1.30	2.00	2.00	2.20	2.40	2.40
101	M	100	117.0	123.0	125.0	1.10	1.60	1.90	1.80	1.90	1.90
151	M	150	190.0	273.0	175.0	0.88	1.00	1.50	1.40	1.20	1.60
221	M	220	270.0	-	258.0	0.72	-	1.30	1.20	-	1.30
331	M	330	410.0	-	-	0.59	-	-	1.00	-	-
471	M	470	520.0	-	-	0.49	-	-	0.88	-	-
681	M	680	760.0	-	-	0.43	-	-	0.73	-	-
102	M	1000	1120	-	-	0.34	-	-	0.60	-	-
152	M	1500	1730	-	-	0.29	-	-	0.48	-	-