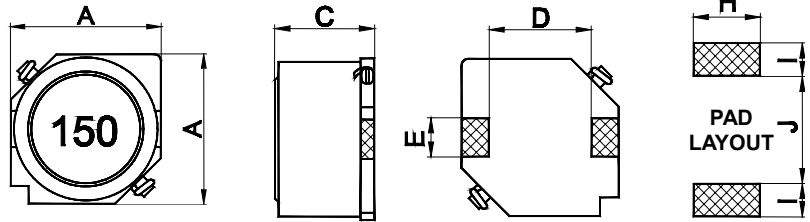


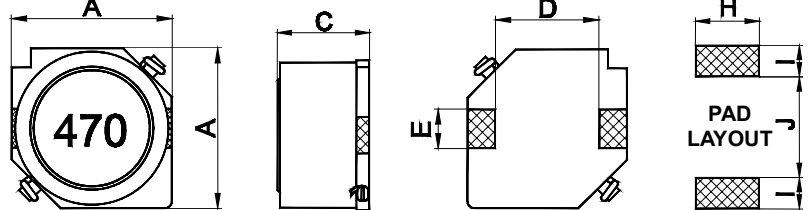
Shielded SMD Power Inductor – PCDR



PCDR 0628 / 0728 / 0730 / 0732 / 0745 / 1045



PCDR 1255 / 1265 / 1275



Features

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

Applications

- Portable Telephones
- Personal Computers
- DC/DC Converters, etc.
- Other Various Electronic Appliances

Characteristics

- Saturation Rated Current (I sat): 0628~1275 The current when the inductance becomes 30% lower than 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: -40~85°C

Dimensions

Unit: mm

Type	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

Inductance and rated current ranges

- | | | |
|------------|------------|-----------|
| – PCDR0628 | 4.7~100μH | 1.6~0.42A |
| – PCDR0728 | 3.3~56μH | 1.6~0.5A |
| – PCDR0730 | 3.3~100μH | 1.8~0.35A |
| – PCDR0732 | 3.3~1000μH | 1.9~0.13A |
| – PCDR0745 | 3.3~1000μH | 2.5~0.14A |
| – PCDR1045 | 10~1500μH | 3.0~0.22A |
| – PCDR1255 | 6.0~1500μH | 3.6~0.29A |
| – PCDR1265 | 2.0~150μH | 10~1.00A |
| – PCDR1275 | 1.2~220μH | 13~1.30A |
- Electrical specifications at 25°C

Product Identification

PCDR	0628	M	T	101
Product Type	Dimensions (AxC)	Inductor Tolerance	Packaging Style	Inductance
	0628: 6.0x2.8 0728: 7.0x2.8 0730: 7.0x3.0 0732: 7.0x3.2 0745: 7.0x4.5 1045: 10.1x4.5 1255: 12.5x5.5 1265: 12.5x6.5 1275: 12.5x7.5	M: ±20% N: ±30%	T: Tape and Reel	1R1: 1.1μH 470: 47μH 101: 100μH

■ Electrical Characteristics

PCDR0628 / 0728 / 0730 Type

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$			IDC (A) max.					
							I sat			I rms		
				0628	0728	0730	0628	0728	0730	0628	0728	0730
3R3	3.3	M	1KHz, 0.5V	-	0.037	0.023	-	1.60	1.80	-	1.60	1.80
4R7	4.7	M	1KHz, 0.5V	0.036	0.045	0.036	1.60	1.50	1.60	2.50	1.50	1.60
6R8	6.8	M	1KHz, 0.5V	0.052	0.059	0.041	1.50	1.30	1.50	2.20	1.30	1.50
100	10	M	1KHz, 0.5V	0.068	0.083	0.053	1.30	1.10	1.30	1.80	1.10	1.30
150	15	M	1KHz, 0.5V	0.100	0.130	0.084	1.00	0.88	1.00	1.40	0.88	1.00
220	22	M	1KHz, 0.5V	0.120	0.180	0.110	0.77	0.75	0.86	1.30	0.75	0.86
330	33	M	1KHz, 0.5V	0.180	0.240	0.160	0.69	0.65	0.65	1.10	0.65	0.65
470	47	M	1KHz, 0.5V	0.270	0.340	0.240	0.59	0.54	0.57	0.92	0.54	0.57
560	56	M	1KHz, 0.5V	0.330	0.420	0.280	0.51	0.50	0.53	0.85	0.45	0.60
680	68	M	1KHz, 0.5V	0.390	-	0.310	0.50	-	0.49	0.78	-	0.49
101	100	M	1KHz, 0.5V	0.620	-	0.450	0.42	-	0.35	0.64	-	0.35

PCDR0732 / 0745 / 1045 Type

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) $\pm 20\%$			IDC (A) max.					
							I sat			I rms		
				0732	0745	1045	0732	0745	1045	0732	0745	1045
3R3	3.3	M	1KHz, 0.5V	0.023	0.020	-	1.90	2.50	-	1.90	2.30	-
4R7	4.7	M	1KHz, 0.5V	0.036	0.030	-	1.70	2.00	-	1.70	2.10	-
6R8	6.8	M	1KHz, 0.5V	0.041	0.039	-	1.60	1.70	-	1.60	1.74	-
100	10	M	1KHz, 0.5V	0.053	0.036	0.036	1.40	1.30	3.00	1.40	1.78	2.50
150	15	M	1KHz, 0.5V	0.075	0.052	0.047	1.10	1.10	2.40	1.10	1.53	2.20
220	22	M	1KHz, 0.5V	0.110	0.061	0.059	0.96	0.90	2.10	0.96	1.34	1.90
330	33	M	1KHz, 0.5V	0.160	0.096	0.082	0.75	0.82	1.60	0.75	1.09	1.70
470	47	M	1KHz, 0.5V	0.240	0.125	0.100	0.67	0.75	1.40	0.67	0.92	1.50
560	56	M	1KHz, 0.5V	0.300	0.130	0.110	0.60	0.67	1.30	0.70	0.88	1.40
680	68	M	1KHz, 0.5V	0.310	0.175	0.140	0.59	0.60	1.20	0.59	0.77	1.30
101	100	M	1KHz, 0.5V	0.450	0.250	0.200	0.45	0.50	1.00	0.45	0.65	1.10
151	150	M	1KHz, 0.5V	0.650	0.340	0.350	0.37	0.40	0.79	0.37	0.55	0.81
221	220	M	1KHz, 0.5V	1.050	0.520	0.470	0.29	0.33	0.65	0.29	0.45	0.70
331	330	M	1KHz, 0.5V	1.670	0.740	0.680	0.22	0.25	0.54	0.22	0.37	0.58
471	470	M	1KHz, 0.5V	2.050	1.050	1.030	0.20	0.22	0.47	0.20	0.31	0.47
681	680	M	1KHz, 0.5V	3.150	1.480	1.600	0.16	0.20	0.38	0.16	0.27	0.38
102	1000	M	1KHz, 0.5V	4.780	2.280	2.800	0.13	0.14	0.32	0.13	0.25	0.29
152	1500	M	1KHz, 0.5V	-	-	3.400	-	-	0.22	-	-	0.26

Electrical Characteristics

PCDR1255 / 1265 / 1275 Type

Codes	L (μ H)	Tolerance	Test Condition	DCR (Ω) \pm 20%			IDC (A) max.					
							I sat			I rms		
				1255	1265	1275	1255	1265	1275	1255	1265	1275
1R2	1.2	N	1KHz, 0.5V	-	-	0.0069	-	-	13.00	-	-	8.20
2R0	2.0	N	1KHz, 0.5V	-	0.0117	-	-	10.0	-	-	6.20	-
2R7	2.7	N	1KHz, 0.5V	-	-	0.0094	-	-	10.00	-	-	7.00
3R9	3.9	N	1KHz, 0.5V	-	-	0.0104	-	-	9.00	-	-	6.70
4R2	4.2	N	1KHz, 0.5V	-	0.0150	-	-	7.30	-	-	5.50	-
5R6	5.6	N	1KHz, 0.5V	-	-	0.0116	-	-	7.80	-	-	6.30
6R0	6.0	N	1KHz, 0.5V	0.0164	-	-	3.60	-	-	4.90	-	-
6R8	6.8	N	1KHz, 0.5V	-	-	0.0131	-	-	7.20	-	-	5.90
7R0	7.0	M	1KHz, 0.5V	-	0.0177	-	-	5.70	-	-	5.00	-
100	10	M	1KHz, 0.5V	0.0215	0.0202	0.0156	3.40	5.00	5.50	4.30	4.80	5.40
150	15	M	1KHz, 0.5V	0.0259	0.0237	0.0184	2.80	4.20	4.70	3.90	4.40	5.00
220	22	M	1KHz, 0.5V	0.0338	0.0316	0.0263	2.30	3.50	4.00	3.40	3.80	4.00
330	33	M	1KHz, 0.5V	0.0415	0.0406	0.0395	1.90	2.80	3.20	3.10	3.40	3.40
470	47	M	1KHz, 0.5V	0.0618	0.0578	0.0528	1.60	2.40	2.70	2.50	2.80	3.00
560	56	M	1KHz, 0.5V	0.0750	0.0750	0.0670	1.45	2.20	2.30	2.30	2.50	2.60
680	68	M	1KHz, 0.5V	0.0832	0.0787	0.0778	1.30	2.00	2.00	2.20	2.40	2.40
101	100	M	1KHz, 0.5V	0.1170	0.1230	0.1250	1.10	1.60	1.90	1.80	1.90	1.90
121	120	M	1KHz, 0.5V	-	0.1850	-	-	1.30	-	-	1.50	-
151	150	M	1KHz, 0.5V	0.1900	0.2730	0.1750	0.88	1.00	1.50	1.40	1.20	1.60
221	220	M	1KHz, 0.5V	0.2700	-	0.2580	0.72	-	1.30	1.20	-	1.30
331	330	M	1KHz, 0.5V	0.4100	-	-	0.59	-	-	1.00	-	-
471	470	M	1KHz, 0.5V	0.5200	-	-	0.49	-	-	0.88	-	-
681	680	M	1KHz, 0.5V	0.7600	-	-	0.43	-	-	0.73	-	-
102	1000	M	1KHz, 0.5V	1.1200	-	-	0.34	-	-	0.60	-	-
152	1500	M	1KHz, 0.5V	1.7300	-	-	0.29	-	-	0.48	-	-