

## Data Sheet

**Customer:**

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**Product:** SMD Power Inductor – PCD Series

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**Sizes.:** 0301/0302/0403/0502/0503/0504/0703/0705/1004/1005/1006

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**Issued Date:** 05-Jan-18

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**Edition:** REV.C2

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VIKING TECH CORPORATION  
光韻科技股份有限公司  
No.70, Guangfu N. Rd., Hukou  
Township, Hsinchu County  
303, Taiwan (R.O.C)

TEL:886-3-5972931  
FAX:886-3-5972935•886-3-5973494  
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH  
光韻科技股份有限公司高雄分公司  
No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,  
806, Taiwan

TEL:886-7-8217999  
FAX:886-7-8228229  
E-mail:sales@viking.com.tw

VIKING ELECTRONICS (WUXI) CO., LTD.  
光韻電子(無錫)有限公司  
No.22 Xixia Road, Machinery & Industry Park,  
National Hi-Tech Industrial Development Zone  
of Wuxi, Wuxi, Jiangsu Province, China  
Zip Code:214028  
TEL:86-510-85203339  
FAX:86-510-85203667•86-510-85203977  
E-mail:china@viking.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
05-Jan-18	05-Jan-18	05-Jan-18	05-Jan-18	
<i>Kris Chen</i>	<i>Ben Chang</i>	<i>Ben Chang</i>		

## SMD Power Inductor



### Dimensions

Type	A (mm)	B (mm)	C (mm)	H (mm)	I (mm)	J (mm)
PCD0301	3.5±0.3	3.0±0.3	1.15±0.3	3.50	1.60	0.8
PCD0302	3.5±0.3	3.0±0.3	2.1±0.3	3.50	1.60	0.8
PCD0403	4.5±0.3	4.0±0.3	3.2±0.3	4.50	1.75	1.5
PCD0502	5.8±0.3	5.2±0.3	2.5±0.3	5.50	2.15	1.7
PCD0503	5.8±0.3	5.2±0.3	3.0±0.3	5.50	2.15	1.7
PCD0504	5.8±0.3	5.2±0.3	4.5±0.3	5.50	2.15	1.7
PCD0703	7.8±0.3	7.0±0.3	3.5±0.5	7.50	3.00	2.0
PCD0705	7.8±0.3	7.0±0.3	5.0±0.5	7.50	3.00	2.0
PCD1004	10.0±0.4	9.0±0.3	4.0±0.5	9.50	3.75	2.5
PCD1005	10.0±0.4	9.0±0.3	5.4±0.5	9.50	3.75	2.5
PCD1006	10.0±0.4	9.0±0.3	7.5 max.	9.50	3.75	2.5

### Features

- High power, High saturation inductors
- Silver Plated Type, Low cost design
- Ideal inductors for DC-DC converters
- Available on tape and reel for auto surface mounting

### Applications

- Power Supply For VTRs.
- LCD Televisions
- Personal Computers
- Handheld Communication
- DC/DC Converters, etc.

### Characteristics

- Rated DC Current: The DC current when the inductance becomes 10% lower than its initial value or DC current when temperature of coil is increased to 40°C. (Ta=25°C). The smaller one is defined as Rated DC Current.
- Operating temperature range: -40 ~ 125°C

### Inductance and rated current ranges

- PCD0301 1.0~390µH 1.40~0.10A
- PCD0302 1.0~470µH 2.20~0.07A
- PCD0403 0.5~1000µH 3.00~0.109A
- PCD0502 1.0~1000µH 4.00~0.14A
- PCD0503 1.0~1000µH 4.50~0.13A
- PCD0504 0.6~3300µH 11.0~0.085A
- PCD0703 1.0~1000µH 1.64~0.20A
- PCD0705 1.0~1500µH 3.40~0.16A
- PCD1004 1.0~560µH 8.70~0.32A
- PCD1005 1.2~1000µH 8.63~0.20A
- PCD1006 1.0~1000µH 9.50~0.46A

– Test equipment:

L: HP4284A LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

**SMD Power Inductor**

**Product Identification**

PCD	1005	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	0301: 3.5x3.0x1.15 0302: 3.5x3.0x2.1 0403: 4.5x4.0x3.2 0502: 5.8x5.2x2.5 0503: 5.8x5.2x3.0 0504: 5.8x5.2x4.5 0703: 7.8x7.0x3.5 0705: 7.8x7.0x5.0 1004: 10x9.0x4.0 1005: 10x9.0x5.4 1006: 10x9.0x7.5	K: ±10% M: ±20%	T: Tape and Reel	1R0: 1.0μH 470: 47μH 101: 100μH

**Electrical Characteristics**

PCD0301 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0301□T1R0	1.0	M	100KHz, 0.25V	0.060	1.40
PCD0301□T1R5	1.5	M	100KHz, 0.25V	0.081	1.30
PCD0301□T1R8	1.8	M	100KHz, 0.25V	0.098	1.24
PCD0301□T2R2	2.2	M	100KHz, 0.25V	0.240	1.20
PCD0301□T2R7	2.7	M	100KHz, 0.25V	0.135	1.04
PCD0301□T3R3	3.3	M	100KHz, 0.25V	0.270	1.00
PCD0301□T3R9	3.9	M	100KHz, 0.25V	0.188	0.79
PCD0301□T4R7	4.7	M	100KHz, 0.25V	0.400	0.90
PCD0301□T5R6	5.6	M	100KHz, 0.25V	0.450	0.65
PCD0301□T6R8	6.8	M	100KHz, 0.25V	0.500	0.56
PCD0301□T8R2	8.2	M	100KHz, 0.25V	0.650	0.50
PCD0301□T100	10	M	1KHz, 0.25V	0.750	0.45
PCD0301□T120	12	M	1KHz, 0.25V	0.850	0.43
PCD0301□T150	15	M	1KHz, 0.25V	1.200	0.39
PCD0301□T180	18	M	1KHz, 0.25V	1.300	0.32
PCD0301□T220	22	M	1KHz, 0.25V	1.500	0.28
PCD0301□T270	27	M	1KHz, 0.25V	2.200	0.26
PCD0301□T330	33	M	1KHz, 0.25V	2.800	0.25
PCD0301□T470	47	M	1KHz, 0.25V	4.000	0.21
PCD0301□T560	56	M	1KHz, 0.25V	4.500	0.20
PCD0301□T680	68	M	1KHz, 0.25V	5.000	0.18
PCD0301□T820	82	M	1KHz, 0.25V	6.500	0.16
PCD0301□T101	100	M	1KHz, 0.25V	7.500	0.15
PCD0301□T221	220	M	1KHz, 0.25V	14.00	0.13
PCD0301□T331	330	M	1KHz, 0.25V	22.00	0.11
PCD0301□T391	390	M	1KHz, 0.25V	26.00	0.10

**■Electrical Characteristics**

PCD 0302 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD0302□T1R0	1.0	M	100KHz, 0.25V	0.045	2.200
PCD0302□T1R2	1.2	M	100KHz, 0.25V	0.050	2.100
PCD0302□T1R4	1.4	M	100KHz, 0.25V	0.050	2.000
PCD0302□T1R5	1.5	M	100KHz, 0.25V	0.055	1.700
PCD0302□T1R8	1.8	M	100KHz, 0.25V	0.070	1.650
PCD0302□T2R2	2.2	M	100KHz, 0.25V	0.085	1.600
PCD0302□T2R7	2.7	M	100KHz, 0.25V	0.100	1.400
PCD0302□T3R3	3.3	M	100KHz, 0.25V	0.120	1.040
PCD0302□T3R9	3.9	M	100KHz, 0.25V	0.130	1.000
PCD0302□T4R7	4.7	M	100KHz, 0.25V	0.170	1.000
PCD0302□T5R6	5.6	M	100KHz, 0.25V	0.185	0.950
PCD0302□T6R8	6.8	M	100KHz, 0.25V	0.200	0.950
PCD0302□T8R2	8.2	M	100KHz, 0.25V	0.250	0.900
PCD0302□T100	10	K, M	1KHz, 0.25V	0.320	0.760
PCD0302□T120	12	K, M	1KHz, 0.25V	0.350	0.685
PCD0302□T150	15	K, M	1KHz, 0.25V	0.460	0.635
PCD0302□T180	18	K, M	1KHz, 0.25V	0.520	0.525
PCD0302□T220	22	K, M	1KHz, 0.25V	0.660	0.500
PCD0302□T270	27	K, M	1KHz, 0.25V	0.760	0.405
PCD0302□T330	33	K, M	1KHz, 0.25V	0.920	0.380
PCD0302□T390	39	K, M	1KHz, 0.25V	1.120	0.355
PCD0302□T470	47	K, M	1KHz, 0.25V	1.270	0.330
PCD0302□T560	56	K, M	1KHz, 0.25V	1.500	0.290
PCD0302□T680	68	K, M	1KHz, 0.25V	2.000	0.260
PCD0302□T820	82	K, M	1KHz, 0.25V	2.440	0.230
PCD0302□T101	100	K, M	1KHz, 0.25V	2.850	0.200
PCD0302□T121	120	K, M	1KHz, 0.25V	3.400	0.180
PCD0302□T151	150	K, M	1KHz, 0.25V	4.470	0.160
PCD0302□T181	180	K, M	1KHz, 0.25V	5.110	0.150
PCD0302□T221	220	K, M	1KHz, 0.25V	7.310	0.140
PCD0302□T271	270	K, M	1KHz, 0.25V	8.500	0.100
PCD0302□T331	330	K, M	1KHz, 0.25V	10.19	0.090
PCD0302□T471	470	K, M	1KHz, 0.25V	13.50	0.070

**■Electrical Characteristics**

PCD0403 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD0403□TR50	0.5	M	100KHz, 0.25V	0.020	3.000
PCD0403□T1R0	1.0	M	100KHz, 0.25V	0.049	2.700
PCD0403□T1R0-1	1.0	N	100KHz, 0.1V	0.049	5.72
PCD0403□T1R2	1.2	M	100KHz, 0.25V	0.053	2.540
PCD0403□T1R4	1.4	M	100KHz, 0.25V	0.056	2.500
PCD0403□T1R5	1.5	M	100KHz, 0.25V	0.061	2.240
PCD0403□T1R8	1.8	M	100KHz, 0.25V	0.064	2.330
PCD0403□T2R2	2.2	M	100KHz, 0.25V	0.072	2.250
PCD0403□T2R2-2	2.2	M	100KHz, 1V	0.047	3.600
PCD0403□T2R7	2.7	M	100KHz, 0.25V	0.079	2.160
PCD0403□T3R3	3.3	M	100KHz, 0.25V	0.086	2.000
PCD0403□T3R9	3.9	M	100KHz, 0.25V	0.094	1.840
PCD0403□T4R7	4.7	M	100KHz, 0.25V	0.109	1.620
PCD0403□T5R6	5.6	M	100KHz, 0.25V	0.126	1.480
PCD0403□T6R8	6.8	M	100KHz, 0.25V	0.131	1.430
PCD0403□T8R2	8.2	M	100KHz, 0.25V	0.147	1.370
PCD0403□T100	10	K, M	1KHz, 0.25V	0.182	1.040
PCD0403□T120	12	K, M	1KHz, 0.25V	0.210	0.970
PCD0403□T150	15	K, M	1KHz, 0.25V	0.235	0.850
PCD0403□T150-2	15	M	1KHz, 0.25V	0.235	1.200
PCD0403□T180	18	K, M	1KHz, 0.25V	0.338	0.740
PCD0403□T220	22	K, M	1KHz, 0.25V	0.378	0.680
PCD0403□T270	27	K, M	1KHz, 0.25V	0.522	0.620
PCD0403□T330	33	K, M	1KHz, 0.25V	0.540	0.560
PCD0403□T390	39	K, M	1KHz, 0.25V	0.587	0.520
PCD0403□T470	47	K, M	1KHz, 0.25V	0.844	0.440
PCD0403□T560	56	K, M	1KHz, 0.25V	0.937	0.420
PCD0403□T680	68	K, M	1KHz, 0.25V	1.117	0.370
PCD0403□T820	82	K, M	1KHz, 0.25V	1.140	0.340
PCD0403□T101	100	K, M	1KHz, 0.25V	1.190	0.300
PCD0403□T121	120	K, M	1KHz, 0.25V	1.400	0.256
PCD0403□T151	150	K, M	1KHz, 0.25V	1.800	0.212
PCD0403□T181	180	K, M	1KHz, 0.25V	1.920	0.200
PCD0403□T221	220	K, M	1KHz, 0.25V	2.030	0.180
PCD0403□T271	270	K, M	1KHz, 0.25V	2.890	0.174
PCD0403□T331	330	K, M	1KHz, 0.25V	3.760	0.168
PCD0403□T391	390	K, M	1KHz, 0.25V	4.260	0.160
PCD0403□T471	470	K, M	1KHz, 0.25V	5.140	0.158
PCD0403□T561	560	K, M	1KHz, 0.25V	6.370	0.148
PCD0403□T681	680	K, M	1KHz, 0.25V	9.240	0.128
PCD0403□T821	820	K, M	1KHz, 0.25V	13.40	0.110
PCD0403□T102	1000	K, M	1KHz, 0.25V	15.60	0.109
PCD0403□T102-2	1000	K	1KHz, 0.25V	14.00	0.130

**Note: PCD0403□T2R2-2 The DC current when the inductance becomes 30% lower than its initial value**

**PCD0403□T102-2 The DC current when the inductance becomes 35% lower than its initial value**

**■Electrical Characteristics**

PCD0502 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD0502□T1R0	1.0	M	100KHz, 0.25V	0.021	4.000
PCD0502□T1R2	1.2	M	100KHz, 0.25V	0.050	4.200
PCD0502□T1R5	1.5	M	100KHz, 0.25V	0.060	4.000
PCD0502□T1R8	1.8	M	100KHz, 0.25V	0.065	3.700
PCD0502□T2R2	2.2	M	100KHz, 0.25V	0.070	3.500
PCD0502□T2R7	2.7	M	100KHz, 0.25V	0.080	3.200
PCD0502□T3R3	3.3	M	100KHz, 0.25V	0.100	2.700
PCD0502□T3R9	3.9	M	100KHz, 0.25V	0.120	2.400
PCD0502□T4R7	4.7	M	100KHz, 0.25V	0.140	2.000
PCD0502□T5R6	5.6	M	100KHz, 0.25V	0.150	1.800
PCD0502□T6R8	6.8	M	100KHz, 0.25V	0.160	1.500
PCD0502□T8R2	8.2	M	100KHz, 0.25V	0.170	1.400
PCD0502□T100	10	K, M	1KHz, 0.25V	0.200	1.300
PCD0502□T120	12	K, M	1KHz, 0.25V	0.230	1.100
PCD0502□T150	15	K, M	1KHz, 0.25V	0.250	1.050
PCD0502□T180	18	K, M	1KHz, 0.25V	0.300	1.000
PCD0502□T220	22	K, M	1KHz, 0.25V	0.350	0.900
PCD0502□T270	27	K, M	1KHz, 0.25V	0.400	0.850
PCD0502□T330	33	K, M	1KHz, 0.25V	0.500	0.750
PCD0502□T390	39	K, M	1KHz, 0.25V	0.550	0.700
PCD0502□T470	47	K, M	1KHz, 0.25V	0.650	0.600
PCD0502□T560	56	K, M	1KHz, 0.25V	0.760	0.550
PCD0502□T680	68	K, M	1KHz, 0.25V	0.950	0.500
PCD0502□T820	82	K, M	1KHz, 0.25V	1.200	0.450
PCD0502□T101	100	K, M	1KHz, 0.25V	1.400	0.400
PCD0502□T121	120	K, M	1KHz, 0.25V	1.750	0.350
PCD0502□T151	150	K, M	1KHz, 0.25V	2.000	0.250
PCD0502□T181	180	K, M	1KHz, 0.25V	2.600	0.250
PCD0502□T221	220	K, M	1KHz, 0.25V	3.000	0.200
PCD0502□T271	270	K, M	1KHz, 0.25V	3.700	0.180
PCD0502□T331	330	K, M	1KHz, 0.25V	4.300	0.170
PCD0502□T391	390	K, M	1KHz, 0.25V	6.000	0.160
PCD0502□T471	470	K, M	1KHz, 0.25V	6.700	0.150
PCD0502□T102	1000	K, M	1KHz, 0.25V	15.00	0.140

**■Electrical Characteristics**

PCD0503 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0503□T1R0	1.0	M	100KHz, 0.25V	0.03	4.50
PCD0503□T1R2	1.2	M	100KHz, 0.25V	0.03	4.20
PCD0503□T1R5	1.5	M	100KHz, 0.25V	0.03	4.10
PCD0503□T1R8	1.8	M	100KHz, 0.25V	0.03	3.70
PCD0503□T2R2	2.2	M	100KHz, 0.25V	0.03	3.50
PCD0503□T2R7	2.7	M	100KHz, 0.25V	0.04	3.20
PCD0503□T3R3	3.3	M	100KHz, 0.25V	0.05	2.80
PCD0503□T3R9	3.9	M	100KHz, 0.25V	0.06	2.60
PCD0503□T4R7	4.7	M	100KHz, 0.25V	0.07	2.50
PCD0503□T5R6	5.6	M	100KHz, 0.25V	0.08	2.40
PCD0503□T6R8	6.8	M	100KHz, 0.25V	0.09	2.20
PCD0503□T8R2	8.2	M	100KHz, 0.25V	0.10	2.00
PCD0503□T100	10	K, M	1KHz, 0.25V	0.13	1.80
PCD0503□T120	12	K, M	1KHz, 0.25V	0.16	1.75
PCD0503□T150	15	K, M	1KHz, 0.25V	0.19	1.70
PCD0503□T150-1	15	K, M	100KHz, 0.25V	0.15	1.70
PCD0503□T180	18	K, M	1KHz, 0.25V	0.21	1.60
PCD0503□T220	22	K, M	1KHz, 0.25V	0.28	1.50
PCD0503□T270	27	K, M	1KHz, 0.25V	0.32	1.40
PCD0503□T330	33	K, M	1KHz, 0.25V	0.38	1.10
PCD0503□T390	39	K, M	1KHz, 0.25V	0.42	1.00
PCD0503□T470	47	K, M	1KHz, 0.25V	0.43	0.90
PCD0503□T560	56	K, M	1KHz, 0.25V	0.50	0.85
PCD0503□T680	68	K, M	1KHz, 0.25V	0.68	0.80
PCD0503□T820	82	K, M	1KHz, 0.25V	0.82	0.65
PCD0503□T101	100	K, M	1KHz, 0.25V	1.10	0.60
PCD0503□T121	120	K, M	1KHz, 0.25V	1.20	0.58
PCD0503□T151	150	K, M	1KHz, 0.25V	1.50	0.43
PCD0503□T181	180	K, M	1KHz, 0.25V	1.80	0.41
PCD0503□T221	220	K, M	1KHz, 0.25V	2.00	0.38
PCD0503□T271	270	K, M	1KHz, 0.25V	2.90	0.35
PCD0503□T331	330	K, M	1KHz, 0.25V	3.30	0.28
PCD0503□T391	390	K, M	1KHz, 0.25V	3.70	0.26
PCD0503□T471	470	K, M	1KHz, 0.25V	4.90	0.20
PCD0503□T561	560	K, M	1KHz, 0.25V	5.00	0.19
PCD0503□T681	680	K, M	1KHz, 0.25V	6.00	0.18
PCD0503□T821	820	K, M	1KHz, 0.25V	6.60	0.15
PCD0503□T102	1000	K, M	1KHz, 0.25V	8.00	0.13
PCD0503□T102-2	1000	K	1KHz, 0.25V	11.5	0.135

**Note:** PCD0503□T150-1 The DC current when the inductance becomes 15% lower than its initial value

**■Electrical Characteristics**

PCD0504 Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCD0504□TR60-1	0.6	P	100KHz, 1V	0.0182	11.00
PCD0504□T1R0	1.0	M	100KHz, 0.25V	0.010	5.00
PCD0504□T1R0-1	1.0	N	100KHz, 1V	0.0139	8.50
PCD0504□T1R2	1.2	M	100KHz, 0.25V	0.012	4.77
PCD0504□T1R5	1.5	M	100KHz, 0.25V	0.013	4.50
PCD0504□T1R8	1.8	M	100KHz, 0.25V	0.016	4.25
PCD0504□T2R2	2.2	M	100KHz, 0.25V	0.017	4.20
PCD0504□T2R2-1	2.2	N	100KHz, 1V	0.0251	6.00
PCD0504□T2R7	2.7	M	100KHz, 0.25V	0.025	4.00
PCD0504□T3R3	3.3	M	100KHz, 0.25V	0.034	2.50
PCD0504□T3R9	3.9	M	100KHz, 0.25V	0.035	2.20
PCD0504□T4R7	4.7	M	100KHz, 0.25V	0.035	2.00
PCD0504□T4R7-2	4.7	M	7.96MHz, 1V	0.060	3.00
PCD0504□T5R6	5.6	M	100KHz, 0.25V	0.042	1.82
PCD0504□T6R8	6.8	M	100KHz, 0.25V	0.060	1.69
PCD0504□T8R2	8.2	M	100KHz, 0.25V	0.060	1.56
PCD0504□T100	10	K, M	1KHz, 0.25V	0.100	1.44
PCD0504□T120	12	K, M	1KHz, 0.25V	0.120	1.40
PCD0504□T150	15	K, M	1KHz, 0.25V	0.140	1.30
PCD0504□T180	18	K, M	1KHz, 0.25V	0.150	1.23
PCD0504□T220	22	K, M	1KHz, 0.25V	0.180	1.11
PCD0504□T270	27	K, M	1KHz, 0.25V	0.200	0.97
PCD0504□T330	33	K, M	1KHz, 0.25V	0.230	0.88
PCD0504□T390	39	K, M	1KHz, 0.25V	0.320	0.80
PCD0504□T470	47	K, M	1KHz, 0.25V	0.370	0.72
PCD0504□T470-2	47	K, M	1KHz, 0.25V	0.370	1.50
PCD0504□T560	56	K, M	1KHz, 0.25V	0.420	0.68
PCD0504□T680	68	K, M	1KHz, 0.25V	0.460	0.61
PCD0504□T820	82	K, M	1KHz, 0.25V	0.600	0.58
PCD0504□T101	100	K, M	1KHz, 0.25V	0.700	0.52
PCD0504□T121	120	K, M	1KHz, 0.25V	0.930	0.48
PCD0504□T151	150	K, M	1KHz, 0.25V	1.100	0.40
PCD0504□T181	180	K, M	1KHz, 0.25V	1.380	0.38
PCD0504□T221	220	K, M	1KHz, 0.25V	1.570	0.35
PCD0504□T221-1	220	K, M	1KHz, 0.25V	1.570	0.47
PCD0504□T221-2	220	K, M	100KHz, 0.25V	1.400	0.40
PCD0504□T271	270	K, M	1KHz, 0.25V	1.600	0.34
PCD0504□T331	330	K, M	1KHz, 0.25V	1.820	0.32
PCD0504□T471	470	K, M	1KHz, 0.25V	2.760	0.30
PCD0504□T561	560	K, M	1KHz, 0.25V	3.100	0.29
PCD0504□T681	680	K, M	1KHz, 0.25V	4.050	0.28
PCD0504□T821	820	K, M	1KHz, 0.25V	5.560	0.27
PCD0504□T102	1000	K, M	1KHz, 0.25V	5.740	0.26
PCD0504□T122-1	1200	K	1KHz, 0.5V	6.400	0.16
PCD0504□T152-1	1500	K	1KHz, 0.5V	8.550	0.16
PCD0504□T222-1	2200	K	1KHz, 0.5V	12.800	0.10
PCD0504□T332	3300	K	1KHz, 0.25V	16.800	0.085
PCD0504□T332-1	3300	K	1KHz, 0.5V	24.000	0.08

Note: PCD0504□T1R0-1 / PCD0504□T2R2-1 The DC current when the inductance becomes 30% lower than its initial value  
 PCD0504□TR60-1 / PCD0504□T470-2 The DC current when the inductance becomes 35% lower than its initial value



**■Electrical Characteristics**

PCD0703 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD0703□T1R0	1.0	M	100KHz, 0.25V	0.018	1.64
PCD0703□T1R5	1.5	M	100KHz, 0.25V	0.020	1.60
PCD0703□T2R2	2.2	M	100KHz, 0.25V	0.023	1.60
PCD0703□T3R3	3.3	M	100KHz, 0.25V	0.025	1.59
PCD0703□T4R7	4.7	M	100KHz, 0.25V	0.039	1.54
PCD0703□T6R8	6.8	M	100KHz, 0.25V	0.040	1.49
PCD0703□T8R2	8.2	M	100KHz, 0.25V	0.080	1.46
PCD0703□T100	10	K, M	1KHz, 0.25V	0.080	1.44
PCD0703□T120	12	K, M	1KHz, 0.25V	0.090	1.39
PCD0703□T150	15	K, M	1KHz, 0.25V	0.104	1.24
PCD0703□T180	18	K, M	1KHz, 0.25V	0.111	1.12
PCD0703□T220	22	K, M	1KHz, 0.25V	0.129	1.07
PCD0703□T270	27	K, M	1KHz, 0.25V	0.153	0.94
PCD0703□T330	33	K, M	1KHz, 0.25V	0.170	0.85
PCD0703□T390	39	K, M	1KHz, 0.25V	0.217	0.74
PCD0703□T470	47	K, M	1KHz, 0.25V	0.252	0.68
PCD0703□T560	56	K, M	1KHz, 0.25V	0.282	0.64
PCD0703□T680	68	K, M	1KHz, 0.25V	0.332	0.59
PCD0703□T820	82	K, M	1KHz, 0.25V	0.406	0.54
PCD0703□T101	100	K, M	1KHz, 0.25V	0.481	0.51
PCD0703□T121	120	K, M	1KHz, 0.25V	0.536	0.49
PCD0703□T151	150	K, M	1KHz, 0.25V	0.755	0.40
PCD0703□T181	180	K, M	1KHz, 0.25V	1.022	0.36
PCD0703□T221	220	K, M	1KHz, 0.25V	1.200	0.31
PCD0703□T271	270	K, M	1KHz, 0.25V	1.306	0.29
PCD0703□T331	330	K, M	1KHz, 0.25V	1.495	0.28
PCD0703□T391	390	K, M	1KHz, 0.25V	1.700	0.27
PCD0703□T471	470	K, M	1KHz, 0.25V	2.100	0.26
PCD0703□T561	560	K, M	1KHz, 0.25V	2.660	0.25
PCD0703□T681	680	K, M	1KHz, 0.25V	3.000	0.23
PCD0703□T821	820	K, M	1KHz, 0.25V	3.630	0.21
PCD0703□T102	1000	K, M	1KHz, 0.25V	4.760	0.20

**■Electrical Characteristics**

PCD0705 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD0705□T1R0	1.0	M	100KHz, 0.25V	0.013	3.40
PCD0705□T1R5	1.5	M	100KHz, 0.25V	0.016	3.30
PCD0705□T1R8	1.8	M	100KHz, 0.25V	0.020	3.20
PCD0705□T2R2	2.2	M	100KHz, 0.25V	0.023	3.00
PCD0705□T2R5	2.5	M	100KHz, 0.25V	0.026	2.90
PCD0705□T2R7	2.7	M	100KHz, 0.25V	0.027	2.85
PCD0705□T3R3	3.3	M	100KHz, 0.25V	0.028	2.80
PCD0705□T4R7	4.7	M	100KHz, 0.25V	0.045	2.70
PCD0705□T5R6	5.6	M	100KHz, 0.25V	0.048	2.65
PCD0705□T6R8	6.8	M	100KHz, 0.25V	0.058	2.50
PCD0705□T8R2	8.2	M	100KHz, 0.25V	0.070	2.40
PCD0705□T100	10	K, M	1KHz, 0.25V	0.070	2.30
PCD0705□T120	12	K, M	1KHz, 0.25V	0.080	2.00
PCD0705□T150	15	K, M	1KHz, 0.25V	0.090	1.80
PCD0705□T180	18	K, M	1KHz, 0.25V	0.100	1.60
PCD0705□T220	22	K, M	1KHz, 0.25V	0.110	1.50
PCD0705□T220-1	22	K, M	100KHz, 0.25V	0.110	1.50
PCD0705□T270	27	K, M	1KHz, 0.25V	0.120	1.30
PCD0705□T330	33	K, M	1KHz, 0.25V	0.130	1.20
PCD0705□T390	39	K, M	1KHz, 0.25V	0.160	1.10
PCD0705□T470	47	K, M	1KHz, 0.25V	0.180	1.10
PCD0705□T560	56	K, M	1KHz, 0.25V	0.240	0.94
PCD0705□T680	68	K, M	1KHz, 0.25V	0.280	0.85
PCD0705□T820	82	K, M	1KHz, 0.25V	0.370	0.78
PCD0705□T101	100	K, M	1KHz, 0.25V	0.430	0.72
PCD0705□T121	120	K, M	1KHz, 0.25V	0.470	0.66
PCD0705□T151	150	K, M	1KHz, 0.25V	0.640	0.58
PCD0705□T181	180	K, M	1KHz, 0.25V	0.710	0.51
PCD0705□T221	220	K, M	1KHz, 0.25V	0.960	0.49
PCD0705□T271	270	K, M	1KHz, 0.25V	1.110	0.42
PCD0705□T331	330	K, M	1KHz, 0.25V	1.260	0.40
PCD0705□T391	390	K, M	1KHz, 0.25V	1.770	0.36
PCD0705□T471	470	K, M	1KHz, 0.25V	1.960	0.34
PCD0705□T561	560	K, M	1KHz, 0.25V	2.280	0.32
PCD0705□T681	680	K, M	1KHz, 0.25V	2.480	0.30
PCD0705□T821	820	K, M	1KHz, 0.25V	3.400	0.30
PCD0705□T102	1000	K, M	1KHz, 0.25V	4.200	0.30
PCD0705□T102-4	1000	K, M	100KHz, 0.25V	3.300	0.30
PCD0705□T102-5	1000	K, M	1KHz, 0.25V	4.500	0.34
PCD0705□T122	1200	K, M	1KHz, 0.25V	5.000	0.17
PCD0705□T122-1	1200	K, M	100KHz, 0.25V	4.500	0.28
PCD0705□T152	1500	K, M	1KHz, 0.25V	5.520	0.16

**Note:** PCD0705□T102-5 The DC current when the inductance becomes 35% lower than its initial value

**■Electrical Characteristics**

PCD1004 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD1004□T1R0	1.0	M	100KHz, 0.25V	0.012	8.70
PCD1004□T1R2	1.2	M	100KHz, 0.25V	0.014	8.00
PCD1004□T1R5	1.5	M	100KHz, 0.25V	0.016	7.48
PCD1004□T1R8	1.8	M	100KHz, 0.25V	0.018	6.80
PCD1004□T2R2	2.2	M	100KHz, 0.25V	0.020	5.40
PCD1004□T2R7	2.7	M	100KHz, 0.25V	0.024	3.20
PCD1004□T3R3	3.3	M	100KHz, 0.25V	0.028	2.85
PCD1004□T3R9	3.9	M	100KHz, 0.25V	0.030	2.80
PCD1004□T4R7	4.7	M	100KHz, 0.25V	0.038	2.75
PCD1004□T5R6	5.6	M	100KHz, 0.25V	0.040	2.70
PCD1004□T6R8	6.8	M	100KHz, 0.25V	0.042	2.65
PCD1004□T8R2	8.2	M	100KHz, 0.25V	0.048	2.60
PCD1004□T100	10	K, M	1KHz, 0.25V	0.053	2.38
PCD1004□T120	12	K, M	1KHz, 0.25V	0.061	2.13
PCD1004□T150	15	K, M	1KHz, 0.25V	0.070	1.87
PCD1004□T180	18	K, M	1KHz, 0.25V	0.081	1.73
PCD1004□T220	22	K, M	1KHz, 0.25V	0.090	1.60
PCD1004□T270	27	K, M	1KHz, 0.25V	0.100	1.44
PCD1004□T330	33	K, M	1KHz, 0.25V	0.120	1.26
PCD1004□T390	39	K, M	1KHz, 0.25V	0.151	1.20
PCD1004□T470	47	K, M	1KHz, 0.25V	0.170	1.10
PCD1004□T560	56	K, M	1KHz, 0.25V	0.199	1.01
PCD1004□T680	68	K, M	1KHz, 0.25V	0.223	0.91
PCD1004□T820	82	K, M	1KHz, 0.25V	0.252	0.85
PCD1004□T101	100	K, M	1KHz, 0.25V	0.344	0.74
PCD1004□T121	120	K, M	1KHz, 0.25V	0.396	0.69
PCD1004□T151	150	K, M	1KHz, 0.25V	0.544	0.61
PCD1004□T181	180	K, M	1KHz, 0.25V	0.621	0.56
PCD1004□T221	220	K, M	1KHz, 0.25V	0.721	0.53
PCD1004□T271	270	K, M	1KHz, 0.25V	0.949	0.45
PCD1004□T331	330	K, M	1KHz, 0.25V	1.100	0.42
PCD1004□T391	390	K, M	1KHz, 0.25V	1.245	0.38
PCD1004□T471	470	K, M	1KHz, 0.25V	1.526	0.35
PCD1004□T561	560	K, M	1KHz, 0.25V	1.904	0.32

**■Electrical Characteristics**

PCD1005 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD1005□T1R2	1.2	M	100KHz, 0.25V	0.009	8.63
PCD1005□T1R5	1.5	M	100KHz, 0.25V	0.010	8.00
PCD1005□T2R2	2.2	M	100KHz, 0.25V	0.014	6.80
PCD1005□T3R3	3.3	M	100KHz, 0.25V	0.018	3.05
PCD1005□T4R7	4.7	M	100KHz, 0.25V	0.020	2.90
PCD1005□T4R7-1	4.7	M	100KHz, 0.25V	0.020	7.00
PCD1005□T6R8	6.8	M	100KHz, 0.25V	0.040	2.75
PCD1005□T8R2	8.2	M	100KHz, 0.25V	0.050	2.70
PCD1005□T100	10	K, M	1KHz, 0.25V	0.060	2.60
PCD1005□T120	12	K, M	1KHz, 0.25V	0.070	2.45
PCD1005□T150	15	K, M	1KHz, 0.25V	0.080	2.27
PCD1005□T180	18	K, M	1KHz, 0.25V	0.090	2.15
PCD1005□T220	22	K, M	1KHz, 0.25V	0.100	1.95
PCD1005□T270	27	K, M	1KHz, 0.25V	0.110	1.76
PCD1005□T330	33	K, M	1KHz, 0.25V	0.120	1.50
PCD1005□T390	39	K, M	1KHz, 0.25V	0.140	1.37
PCD1005□T470	47	K, M	1KHz, 0.25V	0.170	1.28
PCD1005□T560	56	K, M	1KHz, 0.25V	0.190	1.17
PCD1005□T680	68	K, M	1KHz, 0.25V	0.220	1.11
PCD1005□T820	82	K, M	1KHz, 0.25V	0.250	1.00
PCD1005□T101	100	K, M	1KHz, 0.25V	0.350	0.97
PCD1005□T121	120	K, M	1KHz, 0.25V	0.400	0.89
PCD1005□T151	150	K, M	1KHz, 0.25V	0.470	0.78
PCD1005□T181	180	K, M	1KHz, 0.25V	0.630	0.72
PCD1005□T221	220	K, M	1KHz, 0.25V	0.730	0.66
PCD1005□T271	270	K, M	1KHz, 0.25V	0.970	0.57
PCD1005□T331	330	K, M	1KHz, 0.25V	1.150	0.52
PCD1005□T391	390	K, M	1KHz, 0.25V	1.300	0.48
PCD1005□T471	470	K, M	1KHz, 0.25V	1.480	0.42
PCD1005□T561	560	K, M	1KHz, 0.25V	1.900	0.33
PCD1005□T681	680	K, M	1KHz, 0.25V	2.250	0.28
PCD1005□T821	820	K, M	1KHz, 0.25V	2.550	0.24
PCD1005□T102	1000	K, M	1KHz, 0.25V	3.490	0.20

**■Electrical Characteristics**

PCD1006 Type(□:Tolerance):

Part No	L ( $\mu$ H)	Tolerance	Test Condition	DCR ( $\Omega$ ) max.	IDC (A) max.
PCD1006□T1R0	1.0	M	100KHz, 0.25V	0.008	9.50
PCD1006□T1R8	1.8	M	100KHz, 0.25V	0.011	8.60
PCD1006□T2R2	2.2	M	100KHz, 0.25V	0.012	7.20
PCD1006□T3R3	3.3	M	100KHz, 0.25V	0.016	6.80
PCD1006□T3R9	3.9	M	100KHz, 0.25V	0.017	6.35
PCD1006□T4R7	4.7	M	100KHz, 0.25V	0.019	5.45
PCD1006□T5R6	5.6	M	100KHz, 0.25V	0.024	4.30
PCD1006□T6R8	6.8	M	100KHz, 0.25V	0.035	3.52
PCD1006□T8R2	8.2	M	100KHz, 0.25V	0.045	3.51
PCD1006□T100	10	K, M	1KHz, 0.25V	0.060	3.50
PCD1006□T120	12	K, M	1KHz, 0.25V	0.070	3.40
PCD1006□T150	15	K, M	1KHz, 0.25V	0.080	3.10
PCD1006□T180	18	K, M	1KHz, 0.25V	0.090	3.00
PCD1006□T220	22	K, M	1KHz, 0.25V	0.100	2.60
PCD1006□T270	27	K, M	1KHz, 0.25V	0.110	2.40
PCD1006□T330	33	K, M	1KHz, 0.25V	0.120	2.30
PCD1006□T390	39	K, M	1KHz, 0.25V	0.140	2.10
PCD1006□T470	47	K, M	1KHz, 0.25V	0.170	1.95
PCD1006□T560	56	K, M	1KHz, 0.25V	0.190	1.85
PCD1006□T680	68	K, M	1KHz, 0.25V	0.220	1.65
PCD1006□T820	82	K, M	1KHz, 0.25V	0.250	1.50
PCD1006□T101	100	K, M	1KHz, 0.25V	0.350	1.40
PCD1006□T121	120	K, M	1KHz, 0.25V	0.400	1.30
PCD1006□T151	150	K, M	1KHz, 0.25V	0.470	1.20
PCD1006□T181	180	K, M	1KHz, 0.25V	0.630	1.00
PCD1006□T221	220	K, M	1KHz, 0.25V	0.730	0.95
PCD1006□T271	270	K, M	1KHz, 0.25V	0.970	0.90
PCD1006□T331	330	K, M	1KHz, 0.25V	1.150	0.80
PCD1006□T391	390	K, M	1KHz, 0.25V	1.300	0.75
PCD1006□T471	470	K, M	1KHz, 0.25V	1.480	0.65
PCD1006□T561	560	K, M	1KHz, 0.25V	1.900	0.60
PCD1006□T681	680	K, M	1KHz, 0.25V	2.250	0.50
PCD1006□T821	820	K, M	1KHz, 0.25V	2.550	0.48
PCD1006□T102	1000	K, M	1KHz, 0.25V	3.000	0.46

**SMD Power Inductor**

**■Tape and Reel specifications**



Unit: mm

Type	Tape size		Parts Per Reel
	W	P	13"
PCD0301	12	8	3000
PCD0302	12	8	2000
PCD0403	12	8	2000
PCD0502	12	8	2000
PCD0503	12	8	1500
PCD0504	12	8	1500
PCD0703	16	12	1000
PCD0705	16	12	1000
PCD1004	24	12	1000
PCD1005	24	12	500
PCD1006	24	16	500

**SMD Power Inductor**

**■ SMT Power Inductor Environmental Specifications**

General

Items	Specifications
Shelf Storage conditions	Temperature range: 15~28°C; Humidity: <80% relative humidity. Recommended product should be used within one year from the time of delivery.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -25±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours Tested after 1hour at room temperature.
Thermal shock test		First -25°C 30minutes then 25°C 10 minutes last 85°C 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

Mechanical test

Test Items	Specifications	Test Conditions / Test Methods
Solder ability test	Terminal area must have 90% minimum solder coverage.	Dip pads in flux then dip in solder pot (SnCuNi) at 245±5°C for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130~150°C. Immersing to 260±5°C for 10 seconds.
Vibration test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance		Drop down with 981m/s <sup>2</sup> (100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

The condition of reflow (recommendation)



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