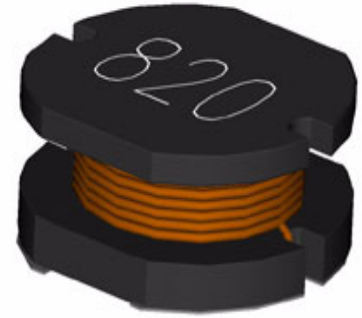


# PCD Series—SMD Unshielded Power Inductor

## Features

- Provides high power and high saturation
- Silver plated for low cost design
- Available on tape and reel for auto surface mounting
- For Inductance values outside those listed in the datasheet contact factory
- Find Environmental information and Packaging specs in related supplemental documents



## Applications

- Power supply for VTRs
- LCD televisions
- Personal computers
- Handheld communication
- DC/DC converters

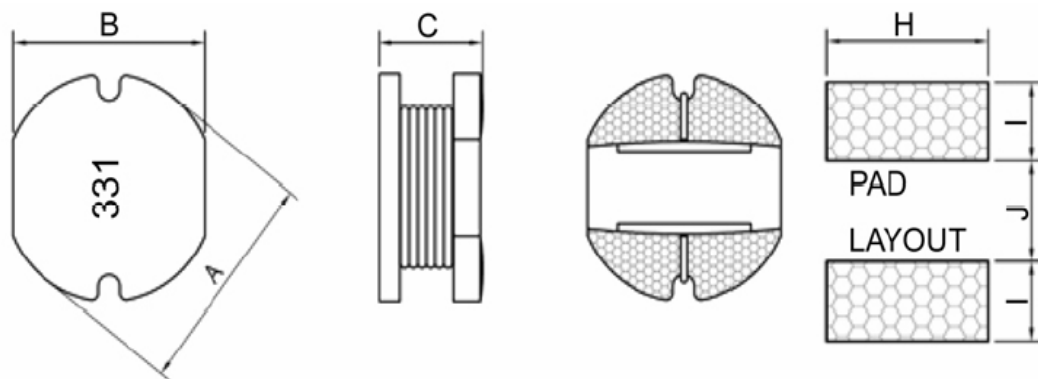
## Inductance and Current ranges

• PCD0302	1.0 ~ 330 $\mu$ H	2.20 ~ 0.09 A
• PCD0403	1.0 ~ 68 $\mu$ H	2.56 ~ 0.37 A
• PCD0502	1.2 ~ 470 $\mu$ H	4.20 ~ 0.15 A
• PCD0503	1.0 ~ 470 $\mu$ H	4.50 ~ 0.20 A
• PCD0504	10 ~ 220 $\mu$ H	1.44 ~ 0.35 A
• PCD0703	10 ~ 330 $\mu$ H	1.44 ~ 0.28 A
• PCD0705	10 ~ 470 $\mu$ H	2.30 ~ 0.34 A
• PCD1004	10 ~ 560 $\mu$ H	2.38 ~ 0.32 A
• PCD1005	10 ~ 820 $\mu$ H	2.60 ~ 0.24 A

## How to Order

PCD		1004		M	T	101	
SEI Type		Dimensions		Tolerance	Packaging	Inductance	
Type	Description	Code	EIA	Code	Tolerance	Code	Inductance
PCD	SMD Power Inductor	0302	3.5x3.0x2.0	K	$\pm 10\%$	1R1	1.1 $\mu$ H
		0403	4.5x4.0x3.2	M	$\pm 20\%$	470	47 $\mu$ H
		0502	5.8x5.2x2.5			101	100 $\mu$ H
		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				

# PCD Series — SMD Unshielded Power Inductor



## Mechanical Specifications - Standard

Type/ Code	A Max.	B Max.	C Max.	H	I	J	Units
PCD0302	0.138 ± 0.012 3.50 ± 0.3	0.118 ± 0.012 3.00 ± 0.3	0.079 ± 0.012 2.00 ± 0.3	0.138 3.50	0.063 1.60	0.032 0.80	inches mm
PCD0403	0.177 ± 0.012 4.50 ± 0.3	0.157 ± 0.012 4.00 ± 0.3	0.126 ± 0.012 3.20 ± 0.3	0.177 4.50	0.069 1.75	0.059 1.50	inches mm
PCD0502	0.228 ± 0.012 5.80 ± 0.3	0.205 ± 0.012 5.20 ± 0.3	0.098 ± 0.012 2.50 ± 0.3	0.217 5.5	0.085 2.15	0.067 1.70	inches mm
PCD0503	0.228 ± 0.012 5.80 ± 0.3	0.205 ± 0.012 5.20 ± 0.3	0.118 ± 0.012 3.00 ± 0.3	0.217 5.5	0.085 2.15	0.067 1.70	inches mm
PCD0504	0.228 ± 0.012 5.80 ± 0.3	0.205 ± 0.012 5.20 ± 0.3	0.177 ± 0.012 4.50 ± 0.3	0.217 5.5	0.085 2.15	0.067 1.70	inches mm
PCD0703	0.307 ± 0.012 7.80 ± 0.3	0.276 ± 0.012 7.00 ± 0.3	0.138 ± 0.012 3.50 ± 0.3	0.295 7.5	0.118 3.00	0.079 2.00	inches mm
PCD0705	0.307 ± 0.012 7.80 ± 0.3	0.276 ± 0.012 7.00 ± 0.3	0.197 ± 0.012 5.00 ± 0.3	0.295 7.5	0.118 3.00	0.079 2.00	inches mm
PCD1004	0.394 ± 0.012 10.0 ± 0.3	0.354 ± 0.012 9.00 ± 0.3	0.157 ± 0.012 4.00 ± 0.3	0.374 9.50	0.148 3.75	0.098 2.50	inches mm
PCD1005	0.394 ± 0.016 10.0 ± 0.4	0.354 ± 0.016 9.00 ± 0.4	0.213 ± 0.012 5.40 ± 0.3	0.374 9.50	0.148 3.75	0.098 2.50	inches mm

## Electrical Characteristics - PCD0302

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0302MT1R0	1.0	20	0.045	2.20
PCD0302MT1R2	1.2	20	0.050	2.10
PCD0302MT1R5	1.5	20	0.055	1.70
PCD0302MT1R8	1.8	20	0.070	1.65
PCD0302MT2R2	2.2	20	0.085	1.60
PCD0302MT2R7	2.7	20	0.100	1.40
PCD0302MT3R3	3.3	20	0.120	1.04
PCD0302MT3R9	3.9	20	0.125	1.00
PCD0302MT4R7	4.7	20	0.135	1.00
PCD0302MT5R6	5.6	20	0.145	0.95
PCD0302MT6R8	6.8	20	0.200	0.95
PCD0302MT8R2	8.2	20	0.250	0.92

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD0302

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0302MT100	10	20	0.320	0.90
PCD0302MT120	12	20	0.350	0.85
PCD0302MT150	15	20	0.460	0.75
PCD0302MT180	18	20	0.520	0.70
PCD0302KT220	22	10	0.650	0.60
PCD0302KT270	27	10	0.750	0.55
PCD0302KT330	33	10	0.920	0.50
PCD0302KT390	39	10	1.120	0.48
PCD0302KT470	47	10	1.270	0.45
PCD0302KT560	56	10	1.500	0.30
PCD0302KT680	68	10	2.000	0.26
PCD0302KT820	82	10	2.150	0.23
PCD0302KT101	100	10	2.850	0.20
PCD0302KT121	120	10	3.400	0.18
PCD0302KT151	150	10	4.200	0.16
PCD0302KT181	180	10	4.500	0.15
PCD0302KT221	220	10	5.700	0.14
PCD0302KT271	270	10	8.500	0.10
PCD0302KT331	330	10	9.500	0.09

## Electrical Characteristics - PCD0403

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0403MT1R0	1.0	20	0.0487	2.56
PCD0403MT1R4	1.4	20	0.0562	2.52
PCD0403MT1R8	1.8	20	0.0637	1.95
PCD0403MT2R2	2.2	20	0.0712	1.75
PCD0403MT2R7	2.7	20	0.0787	1.58
PCD0403MT3R3	3.3	20	0.0862	1.44
PCD0403MT3R9	3.9	20	0.0937	1.33
PCD0403MT4R7	4.7	20	0.1087	1.15
PCD0403MT5R6	5.6	20	0.1257	0.99
PCD0403MT6R8	6.8	20	0.1312	0.95
PCD0403MT8R2	8.2	20	0.1462	0.84
PCD0403MT100	10	20	0.1820	1.05
PCD0403MT120	12	20	0.2100	0.97
PCD0403MT150	15	20	0.2350	0.85
PCD0403MT180	18	20	0.3380	0.74
PCD0403MT220	22	20	0.3780	0.68
PCD0403MT270	27	20	0.5220	0.62
PCD0403KT330	33	10	0.5400	0.56
PCD0403KT390	39	10	0.5870	0.52
PCD0403KT470	47	10	0.8440	0.44
PCD0403KT560	56	10	0.9370	0.42
PCD0403KT680	68	10	1.1170	0.37

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD0502

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0502MT1R2	1.2	20	0.050	4.20
PCD0502MT1R5	1.5	20	0.060	4.00
PCD0502MT1R8	1.8	20	0.065	3.70
PCD0502MT2R2	2.2	20	0.070	3.50
PCD0502MT2R7	2.7	20	0.080	3.20
PCD0502MT3R3	3.3	20	0.100	2.70
PCD0502MT3R9	3.9	20	0.120	2.40
PCD0502MT4R7	4.7	20	0.140	2.00
PCD0502MT5R6	5.6	20	0.150	1.80
PCD0502MT6R8	6.8	20	0.160	1.50
PCD0502MT8R2	8.2	20	0.170	1.40
PCD0502MT100	10	20	0.200	1.30
PCD0502MT120	12	20	0.230	1.10
PCD0502MT150	15	20	0.250	1.05
PCD0502MT180	18	20	0.300	1.00
PCD0502KT220	22	10	0.350	0.90
PCD0502KT270	27	10	0.400	0.85
PCD0502KT330	33	10	0.500	0.75
PCD0502KT390	39	10	0.550	0.70
PCD0502KT470	47	10	0.650	0.60
PCD0502KT560	56	10	0.750	0.55
PCD0502KT680	68	10	0.950	0.50
PCD0502KT820	82	10	1.200	0.45
PCD0502KT101	100	10	1.400	0.40
PCD0502KT121	120	10	1.750	0.35
PCD0502KT151	150	10	2.000	0.25
PCD0502KT181	180	10	2.600	0.22
PCD0502KT221	220	10	3.000	0.20
PCD0502KT271	270	10	3.700	0.18
PCD0502KT331	330	10	4.300	0.17
PCD0502KT391	390	10	6.000	0.16
PCD0502KT471	470	10	6.700	0.15

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD0503

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0503MT1R0	1.0	20	0.03	4.50
PCD0503MT1R2	1.2	20	0.03	4.20
PCD0503MT1R5	1.5	20	0.03	4.10
PCD0503MT1R8	1.8	20	0.03	3.70
PCD0503MT2R2	2.2	20	0.03	3.50
PCD0503MT2R7	2.7	20	0.04	3.20
PCD0503MT3R3	3.3	20	0.05	2.80
PCD0503MT3R9	3.9	20	0.06	2.60
PCD0503MT4R7	4.7	20	0.07	2.50
PCD0503MT5R6	5.6	20	0.08	2.40
PCD0503MT6R8	6.8	20	0.09	2.20
PCD0503MT8R2	8.2	20	0.10	2.00
PCD0503MT100	10	20	0.13	1.80
PCD0503MT120	12	20	0.16	1.75
PCD0503MT150	15	20	0.19	1.70
PCD0503MT180	18	20	0.21	1.60
PCD0503KT220	22	10	0.28	1.50
PCD0503KT270	27	10	0.32	1.40
PCD0503KT330	33	10	0.38	1.10
PCD0503KT390	39	10	0.42	1.00
PCD0503KT470	47	10	0.52	0.90
PCD0503KT560	56	10	0.50	0.85
PCD0503KT680	68	10	0.68	0.80
PCD0503KT820	82	10	0.82	0.65
PCD0503KT101	100	10	1.10	0.60
PCD0503KT121	120	10	1.20	0.58
PCD0503KT151	150	10	1.50	0.43
PCD0503KT181	180	10	1.80	0.41
PCD0503KT221	220	10	2.00	0.38
PCD0503KT271	270	10	2.90	0.35
PCD0503KT331	330	10	3.30	0.28
PCD0503KT391	390	10	3.70	0.26
PCD0503KT471	470	10	4.90	0.20

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD0504

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0504MT100	10	20	0.100	1.44
PCD0504MT120	12	20	0.120	1.40
PCD0504MT150	15	20	0.140	1.30
PCD0504MT180	18	20	0.150	1.23
PCD0504KT220	22	10	0.180	1.11
PCD0504KT270	27	10	0.200	0.97
PCD0504KT330	33	10	0.230	0.88
PCD0504KT390	39	10	0.320	0.80
PCD0504KT470	47	10	0.370	0.72
PCD0504KT560	56	10	0.420	0.68
PCD0504KT680	68	10	0.460	0.61
PCD0504KT820	82	10	0.600	0.58
PCD0504KT101	100	10	0.700	0.52
PCD0504KT121	120	10	0.930	0.48
PCD0504KT151	150	10	1.100	0.40
PCD0504KT181	180	10	1.380	0.38
PCD0504KT221	220	10	1.570	0.35

## Electrical Characteristics - PCD0703

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0703MT100	10	20	0.081	1.44
PCD0703MT120	12	20	0.090	1.39
PCD0703MT150	15	20	0.104	1.24
PCD0703MT180	18	20	0.111	1.12
PCD0703KT220	22	10	0.1290	1.07
PCD0703KT270	27	10	0.153	0.94
PCD0703KT330	33	10	0.170	0.85
PCD0703KT390	39	10	0.217	0.74
PCD0703KT470	47	10	0.252	0.68
PCD0703KT560	56	10	0.282	0.64
PCD0703KT680	68	10	0.332	0.59
PCD0703KT820	82	10	0.406	0.54
PCD0703KT101	100	10	0.481	0.51
PCD0703KT121	120	10	0.536	0.49
PCD0703KT151	150	10	0.755	0.40
PCD0703KT181	180	10	1.022	0.36
PCD0703KT221	220	10	1.200	0.31
PCD0703KT271	270	10	1.306	0.29
PCD0703KT331	330	10	1.495	0.28

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD0705

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD0705MT100	10	20	0.070	2.30
PCD0705MT120	12	20	0.080	2.00
PCD0705MT150	15	20	0.090	1.80
PCD0705MT180	18	20	0.100	1.60
PCD0705KT220	22	10	0.110	1.50
PCD0705KT270	27	10	0.120	1.30
PCD0705KT330	33	10	0.130	1.20
PCD0705KT390	39	10	0.160	1.10
PCD0705KT470	47	10	0.180	1.10
PCD0705KT560	56	10	0.240	0.94
PCD0705KT680	68	10	0.280	0.85
PCD0705KT820	82	10	0.370	0.78
PCD0705KT101	100	10	0.430	0.72
PCD0705KT121	120	10	0.470	0.66
PCD0705KT151	150	10	0.640	0.58
PCD0705KT181	180	10	0.710	0.51
PCD0705KT221	220	10	0.960	0.49
PCD0705KT271	270	10	1.110	0.42
PCD0705KT331	330	10	1.260	0.40
PCD0705KT391	390	10	1.770	0.36
PCD0705KT471	470	10	1.960	0.34

## Electrical Characteristics - PCD1004

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD1004MT100	10	20	0.053	2.38
PCD1004MT120	12	20	0.061	2.13
PCD1004MT150	15	20	0.070	1.87
PCD1004MT180	18	20	0.081	1.73
PCD1004KT220	22	10	0.088	1.60
PCD1004KT270	27	10	0.100	1.44
PCD1004KT330	33	10	0.120	1.26
PCD1004KT390	39	10	0.151	1.20
PCD1004KT470	47	10	0.170	1.10
PCD1004KT560	56	10	0.199	1.01
PCD1004KT680	68	10	0.223	0.91
PCD1004KT820	82	10	0.252	0.85
PCD1004KT101	100	10	0.344	0.74
PCD1004KT121	120	10	0.396	0.69
PCD1004KT151	150	10	0.544	0.61
PCD1004KT181	180	10	0.621	0.56
PCD1004KT221	220	10	0.721	0.53
PCD1004KT271	270	10	0.949	0.45
PCD1004KT331	330	10	1.100	0.42

# PCD Series — SMD Unshielded Power Inductor

## Electrical Characteristics - PCD1004

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD1004KT391	390	10	1.245	0.38
PCD1004KT471	470	10	1.526	0.35
PCD1004KT561	560	10	1.904	0.32

## Electrical Characteristics - PCD1005

Part Number	L ( $\mu$ H)	Tolerance (%)	DCR ( $\Omega$ ) Max	I DC (A) Max
PCD1005MT100	10	20	0.060	2.60
PCD1005MT120	12	20	0.070	2.45
PCD1005MT150	15	20	0.080	2.27
PCD1005MT180	18	20	0.090	2.15
PCD1005KT220	22	10	0.100	1.95
PCD1005KT270	27	10	0.110	1.76
PCD1005KT330	33	10	0.120	1.50
PCD1005KT390	39	10	0.140	1.37
PCD1005KT470	47	10	0.170	1.28
PCD1005KT560	56	10	0.190	1.17
PCD1005KT680	68	10	0.220	1.11
PCD1005KT820	82	10	0.250	1.00
PCD1005KT101	100	10	0.350	0.97
PCD1005KT121	120	10	0.400	0.89
PCD1005KT151	150	10	0.470	0.78
PCD1005KT181	180	10	0.630	0.72
PCD1005KT221	220	10	0.730	0.66
PCD1005KT271	270	10	0.970	0.57
PCD1005KT331	330	10	1.150	0.52
PCD1005KT391	390	10	1.300	0.48
PCD1005KT471	470	10	1.480	0.42
PCD1005KT561	560	10	1.900	0.33
PCD1005KT681	680	10	2.250	0.28
PCD1005KT821	820	10	2.550	0.24