

SMD POWER INDUCTORS

Series PL - S Shielded



FEATURES

- ◆ Low profile and shielded very effective in space-conscious applications.
- ◆ Low resistance and high energy storage.
- ◆ The products contain no lead and also support lead-free soldering.

APPLICATION

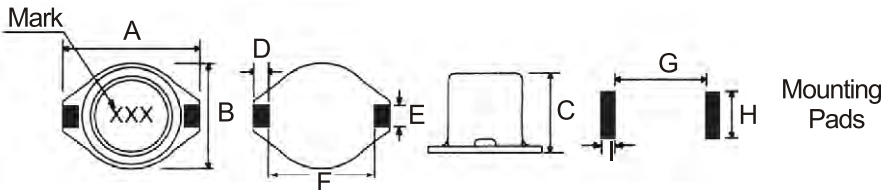
Excellent as DC-DC Converter used in notebooks computers, PDA and mobile handphones. Step-up or step-down converters, flash memory on board power supply.

PRODUCT IDENTIFICATION

PL 04 S 03 K M 10U
a b c d e f g

- a : Type of products - SMD Power Inductors US series.
 b : Dimension(mm) - 04 : 6.6 X 4.45, 08 : 10.5 X 8, 10:12.7 X 105, 15:18.4X15.5
 c : Materials - S = PL on Shielded
 d : Thickness(mm) - 03 = 2.92 (PL10S03 is 3.0mm), 05 = 5.0, 07 = 7.0
 e : Packing - PCS/REEL - K = 2500, 1 = 1000, I = 500, D = 250
 f : Tolerance - K : ±10%, M : ±20%
 g : Inductance - 100N = 0.1uH, 10U = 10.0 uH, 1M2 = 1200uH

SHAPES & DIMENSIONS



Unit : mm

Type	A	B	C	D	E	F	G	H	I
PL04S03	6.6 Max.	4.45 Max.	2.92 Max.	1.02±0.2	1.27±0.2	4.32±0.3	4.57	3.0	1.14
PL08S05	10.5±0.2	8±0.2	5.00±0.3	2.10±0.2	2.00±0.2	6.00±0.3	7.37	3.0	2.30
PL10S03	12.7±0.2	10±0.2	3.00±0.3	2.40±0.2	2.20±0.2	7.60±0.3	7.37	3.0	2.79
PL10S05	12.7±0.2	10±0.2	5.00±0.3	2.40±0.2	2.20±0.2	7.60±0.3	7.37	3.0	2.79
PL15S07	18.4±0.3	15.5±0.3	7.00±0.3	2.40±0.2	2.20±0.2	13.3±0.3	12.45	3.0	2.79

ELECTRICAL CHARACTERISTICS

Type	Ainductance (μH)	Test Frequency (Hz)	SRF (MHz) typ.	RDC (Ω) max.	Irms (A) max.
PL04S03K□1U	1.0	0.1V/100K	250	0.040	3.00
PL04S03K□1U5	1.5	0.1V/100K	125	0.045	2.30
PL04S03K□2U2	2.2	0.1V/100K	120	0.050	1.80
PL04S03K□3U3	3.3	0.1V/100K	120	0.055	1.60
PL04S03K□4U7	4.7	0.1V/100K	105	0.060	1.40
PL04S03K□6U8	6.8	0.1V/100K	50	0.065	1.20
PL04S03K□10U	10	0.1V/100K	38	0.750	1.00
PL04S03K□15U	15	0.1V/100K	33	0.090	0.80
PL04S03K□22U	22	0.1V/100K	25	0.110	0.70
PL04S03K□33U	33	0.1V/100K	20	0.190	0.60
PL04S03K□47U	47	0.1V/100K	20	0.230	0.50
PL04S03K□68U	68	0.1V/100K	15	0.290	0.40
PL04S03K□100U	100	0.1V/100K	10	0.480	0.30
PL04S03K□150U	150	0.1V/100K	9	0.590	0.26
PL04S03K□220U	220	0.1V/100K	6	0.770	0.22
PL04S03K□330U	330	0.1V/100K	5	1.400	0.20
PL04S03K□470U	470	0.1V/100K	4	1.800	0.19
PL04S03K□680U	680	0.1V/100K	3	2.200	0.16
PL04S03K□1M	1000	0.1V/100K	2	3.400	0.15
PL04S03K□1M5	1500	0.1V/100K	2	4.200	0.12
PL04S03K□2M2	2200	0.1V/100K	2	8.500	0.1
PL04S03K□3M3	3300	0.1V/100K	1	11.000	0.08
PL04S03K□4M7	4700	0.1V/100K	1	13.900	0.06
PL04S03K□6M8	6800	0.1V/100K	1	25.000	0.04
PL04S03K□10M	10000	0.1V/100K	0.8	32.800	0.02

Note: Irms - Δ Temperature = 30°Cmax.

SMD POWER INDUCTORS

Series PL - S Shielded

ELECTRICAL CHARACTERISTICS

Part Number	Inductance (μ H)	Test Frequency (Hz)	SRF (MHz) typ.	RDC (Ω) max.	I _{rms} (A) max.	I Sat (A) max.
PL08S051□2U2	2.2	0.1V/100K	75.0	0.040	2.50	6.00
PL08S051□3U9	3.9	0.1V/100K	50.0	0.055	2.10	4.50
PL08S051□5U6	5.6	0.1V/100K	40.0	0.065	1.95	4.00
PL08S051□8U2	8.2	0.1V/100K	32.0	0.080	1.75	3.00
PL08S051□10U	10	0.1V/100K	29.0	0.100	1.50	2.50
PL08S051□12U	12	0.1V/100K	24.0	0.120	1.40	2.00
PL08S051□15U	15	0.1V/100K	22.0	0.140	1.30	1.80
PL08S051□18U	18	0.1V/100K	19.0	0.160	1.20	1.60
PL08S051□22U	22	0.1V/100K	17.0	0.180	1.10	1.50
PL08S051□27U	27	0.1V/100K	15.5	0.200	1.00	1.40
PL08S051□33U	33	0.1V/100K	13.5	0.240	0.92	1.30
PL08S051□39U	39	0.1V/100K	12.0	0.260	0.84	1.00
PL08S051□47U	47	0.1V/100K	10.5	0.280	0.75	0.90
PL08S051□6U	56	0.1V/100K	9.5	0.380	0.68	0.80
PL08S051□68U	68	0.1V/100K	9.0	0.440	0.60	0.70
PL08S051□82U	82	0.1V/100K	8.5	0.550	0.54	0.60
PL08S051□100U	100	0.1V/100K	7.5	0.600	0.50	0.50
PL08S051□120U	120	0.1V/100K	7.0	0.750	0.45	0.45
PL08S051□150U	150	0.1V/100K	6.5	0.900	0.40	0.40
PL08S051□180U	180	0.1V/100K	4.8	1.050	0.35	0.37
PL08S051□220U	220	0.1V/100K	4.5	1.180	0.30	0.35
PL08S051□270U	270	0.1V/100K	4.2	1.400	0.27	0.32
PL08S051□330U	330	0.1V/100K	3.8	1.800	0.24	0.30
PL08S051□390U	390	0.1V/100K	3.6	2.100	0.22	0.28
PL08S051□470U	470	0.1V/100K	3.5	2.250	0.20	0.26
PL08S051□560U	560	0.1V/100K	3.0	3.000	0.18	0.25
PL08S051□680U	680	0.1V/100K	2.8	3.400	0.17	0.23
PL08S051□820U	820	0.1V/100K	2.5	4.000	0.16	0.22
PL08S051□1M	1000	0.1V/100K	2.2	5.000	0.15	0.20
PL10S031□2U2	2.2	0.1V/100K	90.0	0.045	3.50	4.20
PL10S031□3U	3	0.1V/100K	70.0	0.062	3.00	3.60
PL10S031□3U9	3.9	0.1V/100K	60.0	0.070	2.80	3.40
PL10S031□4U7	4.7	0.1V/100K	50.0	0.078	2.50	3.00
PL10S031□6U8	6.8	0.1V/100K	50.0	0.100	2.20	2.60
PL10S031□10U	10	0.1V/100K	38.0	0.145	2.00	2.20
PL10S031□12U	12	0.1V/100K	29.0	0.185	1.75	2.00
PL10S031□15U	15	0.1V/100K	30.0	0.200	1.50	1.80
PL10S031□18U	18	0.1V/100K	25.0	0.270	1.40	1.60
PL10S031□22U	22	0.1V/100K	22.0	0.300	1.30	1.50
PL10S031□27U	27	0.1V/100K	18.0	0.400	1.20	1.30
PL10S031□33U	33	0.1V/100K	17.0	0.450	1.10	1.20
PL10S031□39U	39	0.1V/100K	17.0	0.560	0.95	1.10
PL10S031□47U	47	0.1V/100K	15.0	0.650	0.80	1.05
PL10S031□56U	56	0.1V/100K	14.0	0.680	0.75	1.00
PL10S031□68U	68	0.1V/100K	12.0	0.800	0.70	0.90
PL10S031□82U	82	0.1V/100K	11.0	1.200	0.65	0.85
PL10S031□100U	100	0.1V/100K	9.5	1.400	0.60	0.80
PL10S031□120U	120	0.1V/100K	8.5	1.520	0.55	0.70
PL10S031□150U	150	0.1V/100K	8.0	1.800	0.50	0.65
PL10S031□180U	180	0.1V/100K	7.0	2.200	0.45	0.60

SMD POWER INDUCTORS

Series **PL - S** *Shielded*

ELECTRICAL CHARACTERISTICS

Part Number	Inductance (μ H)	Test Frequency (Hz)	SRF (MHz) typ.	RDC (Ω) max.	I _{rms} (A) max.	I Sat (A) max.
PL10S031□220U	220	0.1V/100K	6.5	2.200	0.40	0.50
PL10S031□270U	270	0.1V/100K	5.5	3.100	0.35	0.45
PL10S031□330U	330	0.1V/100K	5.2	3.600	0.30	0.40
PL10S031□390U	390	0.1V/100K	5.0	4.600	0.25	0.35
PL10S031□470U	470	0.1V/100K	4.5	5.100	0.20	0.30
PL10S051□1U	1	0.1V/100K	130.0	0.021	5.00	5.60
PL10S051□1U5	1.5	0.1V/100K	110.0	0.022	4.50	5.20
PL10S051□2U2	2.2	0.1V/100K	90.0	0.027	3.10	5.00
PL10S051□3U	3	0.1V/100K	65.0	0.030	2.90	3.90
PL10S051□4U7	4.7	0.1V/100K	50.0	0.040	2.50	3.20
PL10S051□6U8	6.8	0.1V/100K	30.0	0.055	2.20	2.80
PL10S051□10U	10	0.1V/100K	28.0	0.065	2.00	2.40
PL10S051□12U	12	0.1V/100K	25.0	0.080	1.80	2.20
PL10S051□15U	15	0.1V/100K	20.0	0.085	1.70	2.00
PL10S051□18U	18	0.1V/100K	19.0	0.090	1.60	1.80
PL10S051□22U	22	0.1V/100K	18.0	0.100	1.40	1.60
PL10S051□27U	27	0.1V/100K	16.0	0.120	1.30	1.50
PL10S051□33U	33	0.1V/100K	14.0	0.160	1.20	1.40
PL10S051□39U	39	0.1V/100K	12.0	0.180	1.05	1.2
PL10S051□47U	47	0.1V/100K	11.0	0.190	1	1
PL10S051□56U	56	0.1V/100K	10.0	0.210	0.9	0.95
PL10S051□68U	68	0.1V/100K	9.0	0.340	0.82	0.9
PL10S051□82U	82	0.1V/100K	8.0	0.380	0.75	0.85
PL10S051□100U	100	0.1V/100K	7.5	0.420	0.68	0.8
PL10S051□120U	120	0.1V/100K	7.0	0.460	0.6	0.7
PL10S051□150U	150	0.1V/100K	6.3	0.520	0.55	0.6
PL10S051□180U	180	0.1V/100K	5.5	0.700	0.5	0.65
PL10S051□220U	220	0.1V/100K	5.0	0.800	0.45	0.5
PL10S051□270U	270	0.1V/100K	4.5	1.100	0.40	0.45
PL10S051□330U	330	0.1V/100K	4.0	1.200	0.35	0.40
PL10S051□390U	390	0.1V/100K	3.3	1.400	0.33	0.35
PL15S07D□10U	10	0.1V/100K	20.0	0.030	4.00	7.36
PL15S07D□15U	15	0.1V/100K	17.0	0.035	3.60	6.40
PL15S07D□22U	22	0.1V/100K	15.0	0.045	3.15	5.05
PL15S07D□33U	33	0.1V/100K	10.0	0.060	2.80	4.25
PL15S07D□47U	47	0.1V/100K	8.5	0.080	2.45	3.55
PL15S07D□68U	68	0.1V/100K	6.5	0.115	2.00	3.01
PL15S07D□110U	110	0.1V/100K	5.5	0.180	1.70	2.46
PL15S07D□150U	150	0.1V/100K	5.0	0.220	1.35	2.00
PL15S07D□220U	220	0.1V/100K	4.0	0.320	1.15	1.63
PL15S07D□330U	330	0.1V/100K	3.0	0.500	0.90	1.33
PL15S07D□470U	470	0.1V/100K	2.5	0.750	0.75	1.11
PL15S07D□680U	680	0.1V/100K	2.3	1.100	0.65	0.93
PL15S07D□1M	1000	0.1V/100K	1.9	1.500	0.55	0.78

Other non standard Inductance value are available to meet your exact requirements

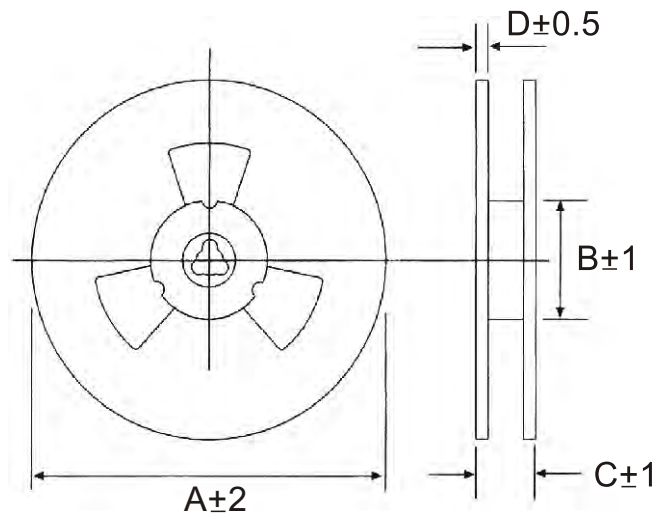
Note:

1. Inductance measured by LCR Meter HP 4294/HP4291
2. DCR measured by Milliohm meter CH502AC
3. SRF measured by Network analyzer HP 4294/HP42914. SRF is for reference only
5. Δ Temperature = 40°C max at I_{rms} 6. Δ L/L0A=10% typical at I sat

SMD POWER INDUCTORS

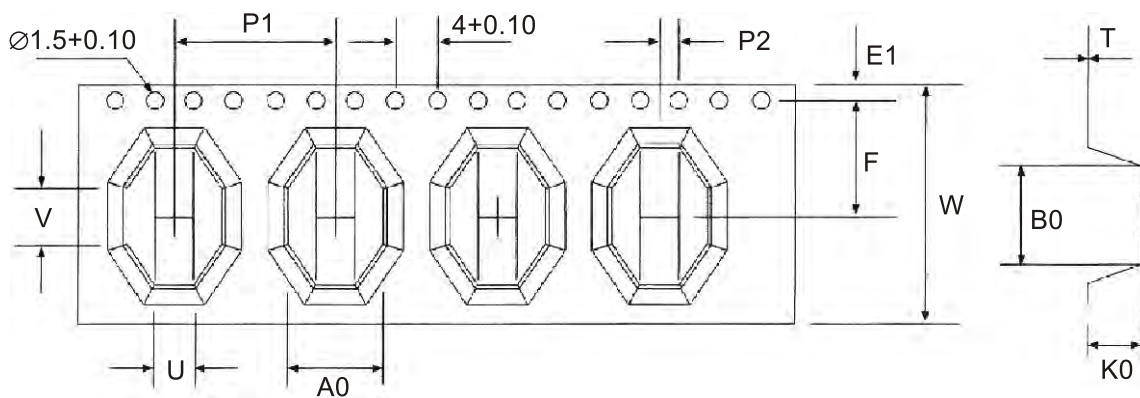
Series **PL - S Shilded**

PACKAGING



Unit : mm

Type	Size	A	B	C	D	PCS/REEL
PL04S03	12mm	330 ± 2	75 ± 1	16.5 ± 1	2.4 ± 0.5	2500
PL08S05	24mm	330 ± 2	75 ± 1	24.5 ± 1	2.4 ± 0.5	1000
PL10S03	24mm	330 ± 2	75 ± 1	24.5 ± 1	2.4 ± 0.5	1000
PL10S05	24mm	330 ± 2	75 ± 1	24.5 ± 1	2.4 ± 0.5	500
PL15S07	32mm	330 ± 2	75 ± 1	32.5 ± 1	2.4 ± 0.5	250



Unit : mm

Type	A0	B0	K0	P1	P2	U	V	E1	F	W	T
PL04S03	4.8	6.9	3.2	8	13.2	1.44	1.34	1.75	11.5	12	0.3
PL08S05	9.7	14.0	5.4	12	13.2	4.8	4.3	1.75	11.5	24	0.3
PL10S03	9.7	14.0	5.4	12	13.2	4.8	4.3	1.75	11.5	24	0.3
PL10S05	9.7	14.0	5.4	12	13.2	4.8	4.3	1.75	11.5	24	0.3
PL15S07	15.54	18.84	7.4	20	13.2	4.3	5.8	1.75	14.2	32	0.4