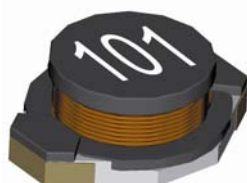


SMD Power Inductor –PD



Applications

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

Features

- High power, High saturation inductors.
- Ideal inductors for DC-DC conversion in notebook computer, PDAs, Step-up or step-down converters, flash memory programmers, etc.
- PD1608 used ceramic base with gold-plating.
- The others used LCP plastic base.

Inductance and rated current ranges

- PD1608 1.0 μ H~1000 μ H 2.9~0.07A
- PD1813 0.18 μ H~100 μ H 10~0.47A
- PD3308 10 μ H~1000 μ H 2.0~0.05A
- PD3316 1.0 μ H~1000 μ H 6.8~0.30A
- PD3340 10 μ H~1000 μ H 3.5~0.10A
- PD5022 1.0 μ H~1000 μ H 8.6~0.56A
- Test equipment:
L: HP4284A LCR meter @ 100KHz 0.1V
DCR Resistance: Milli-ohm meter or equivalent.
SRF: HP4291B RF Impedance Analyzer.
Electrical Specifications at 25 $^{\circ}$ C.

Product Identification

PD 1608 M T 101

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

(1)Type: SMD Power Inductors

(2)Dimensions(mm):1608=6.60×4.45×2.92, 1813=8.89×6.1×4.7
3308=12.95×9.40×3.50, 5022=18.54×15.24×7.11
3316=12.95×9.40×5.21, 3340=12.95×9.40×11.43

(3)Tolerance: M=20%, K=10%

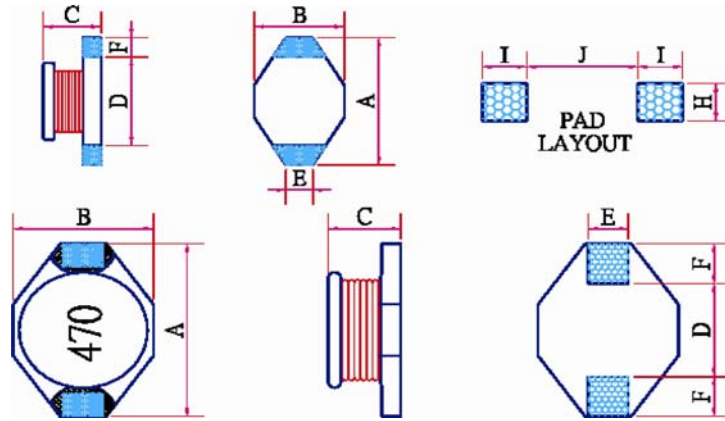
(4) Packaging style: T (Tape and Reel)

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

Characteristics:

- Saturation Rated Current (I sat): The current when the inductance becomes 10%lower then its initial value. (Ta=25 $^{\circ}$ C)
- Temperature Rise Current (I rms): The actual current when temperature of coil becomes Δ 40 $^{\circ}$ C. (Ta=25 $^{\circ}$ C)
- Operating temperature range: -20~80 $^{\circ}$ C.

Dimensions



Unit: mm

Codes	A max	B max	C max	D	E	F	H	I	J
PD1608	6.60	4.45	2.92	4.32	1.27	1.02	3.56	1.40	4.06
PD1813	8.89	6.10	4.70	5.00	2.54	2.54	2.79	2.92	5.00
PD3308	12.95	9.40	3.50	7.62	2.54	2.54	2.79	2.92	7.37
PD3316	12.95	9.40	5.21	7.62	2.54	2.54	2.79	2.92	7.37
PD3340	12.95	9.40	11.43	7.62	2.54	2.54	2.79	2.92	7.37
PD5022	18.84	15.24	7.11	12.7	2.54	2.54	2.79	2.92	12.45

Electrical Characteristics

PD1608 TYPE

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
1R0	M	1.0	0.05	130	2.90	2.90
1R5	M	1.5	0.05	115	2.60	2.80
2R2	M	2.2	0.07	90	2.30	2.40
3R3	M	3.3	0.08	70	2.00	2.00
4R7	M	4.7	0.09	50	1.50	1.50
6R8	M	6.8	0.13	45	1.20	1.40
100	M	10	0.16	35	1.10	1.10
150	M	15	0.23	30	0.90	1.20
220	K	22	0.37	20	0.70	0.80
330	K	33	0.51	15	0.58	0.60
470	K	47	0.64	14	0.50	0.50
680	K	68	0.86	11	0.40	0.40
101	K	100	1.27	9.0	0.31	0.30
151	K	150	2.00	6.0	0.27	0.25
221	K	220	3.11	5.5	0.22	0.20
331	K	330	3.80	5.0	0.18	0.16
471	K	470	6.20	4.0	0.16	0.15
681	K	680	9.20	3.0	0.14	0.12
102	K	1000	13.8	2.0	0.10	0.07

PD1813 TYPE

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
R18	M	0.18	0.003	800	14.0	10.0
R33	M	0.33	0.004	600	10.0	7.0
R56	M	0.56	0.010	200	7.7	6.0
1R2	M	1.2	0.017	140	5.3	4.4
2R2	M	2.2	0.035	100	3.5	3.1
3R3	M	3.3	0.040	80	3.0	2.7
4R7	M	4.7	0.054	50	2.6	2.2
6R8	M	6.8	0.080	45	2.2	1.8
100	M	10	0.111	40	1.9	1.5
150	M	15	0.170	30	1.5	1.2
220	M	22	0.250	25	1.2	1.0
330	M	33	0.350	20	0.99	0.82
470	M	47	0.470	15	0.87	0.72
680	M	68	0.730	10	0.67	0.56
101	M	100	1.110	8	0.53	0.47

Electrical Characteristics

PD3308 TYPE

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
100	M	10	0.11	35	2.4	2.00
150	M	15	0.15	33	2.0	1.50
220	M	22	0.23	25	1.6	1.30
330	M	33	0.30	19	1.4	1.10
470	M	47	0.39	14	1.0	0.80
680	M	68	0.66	12	0.9	0.70
101	M	100	0.84	10	0.7	0.60
151	M	150	1.20	8.0	0.6	0.50
221	M	220	1.90	6.0	0.5	0.40
331	M	330	2.70	5.0	0.4	0.30
471	M	470	4.00	4.0	0.3	0.20
681	M	680	5.30	3.0	0.2	0.10
102	M	1000	8.40	2.5	0.1	0.05

PD3316 TYPE

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
1R0	M	1.0	0.009	100	9.00	6.80
1R5	M	1.5	0.010	90	8.00	6.40
2R2	M	2.2	0.012	80	7.00	6.10
3R3	M	3.3	0.015	65	6.40	5.40
4R7	M	4.7	0.018	45	5.40	4.80
6R8	M	6.8	0.027	38	4.60	4.40
100	M	10	0.038	30	3.80	3.90
150	M	15	0.046	27	3.00	3.10
220	M	22	0.085	19	2.60	2.70
330	M	33	0.100	15	2.00	2.10
470	M	47	0.140	12	1.60	1.80
680	M	68	0.200	10	1.40	1.50
101	M	100	0.280	9.0	1.20	1.30
151	M	150	0.400	6.0	1.00	1.00
221	M	220	0.610	5.0	0.80	0.80
331	M	330	1.020	4.5	0.60	0.60
471	M	470	1.270	3.5	0.50	0.50
681	M	680	2.020	2.5	0.40	0.40
102	M	1000	3.000	2.0	0.30	0.30

PD3340 TYPE

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
100	M	10	0.04	22	8.00	3.50
150	M	15	0.05	18	7.00	3.00
220	M	22	0.07	11	5.50	2.50
330	M	33	0.08	9.0	4.00	2.00
470	M	47	0.11	8.0	3.80	1.60
680	M	68	0.17	7.0	3.00	1.20
101	M	100	0.22	5.0	2.50	1.20
151	M	150	0.34	4.0	2.00	0.90
221	M	220	0.44	3.5	1.60	0.70
331	M	330	0.70	2.5	1.20	0.60
471	M	470	0.95	2.0	1.00	0.30
681	M	680	1.20	2.0	1.00	0.20
102	M	1000	2.00	1.5	0.80	0.10

Electrical Characteristics**PD5022 TYPE**

Part No.	Tolerance	L (μ H)	DCR (Ω)	SRF ref (MHz)	I sat (A)	I rms (A)
1R0	M	1.0	0.009	80	20	8.60
2R2	M	2.2	0.014	80	16	7.10
3R3	M	3.3	0.018	60	14	6.20
5R6	M	5.6	0.020	40	12	5.30
100	M	10	0.031	30	10	4.30
150	M	15	0.036	22	8.0	4.00
220	M	22	0.047	20	7.0	3.50
330	M	33	0.066	15	5.5	3.00
470	M	47	0.086	9.0	4.5	2.60
680	M	68	0.130	8.0	3.5	2.30
101	M	100	0.190	7.0	3.0	1.80
151	M	150	0.250	6.0	2.6	1.50
221	M	220	0.380	5.0	2.4	1.20
331	M	330	0.560	4.0	1.9	1.00
471	M	470	0.850	3.0	1.4	0.82
681	M	680	1.100	2.5	1.2	0.72
102	M	1000	1.800	2.0	1.0	0.56