

Features:

- Provides magnetic shielding against radiation
- Designed to provide higher current to meet portable computer requirements
- PS1608 uses ceramic base with gold plating
- PS3316/5022 uses LCP plastic base
- Contact factory for inductance values outside those listed in the datasheet
- Find environmental information and packaging specification in related supplemental documents



Applications:

- Portable telephones
- GPS and PDAs
- Personal computers
- DC/DC converters

Inductance and Current Ranges

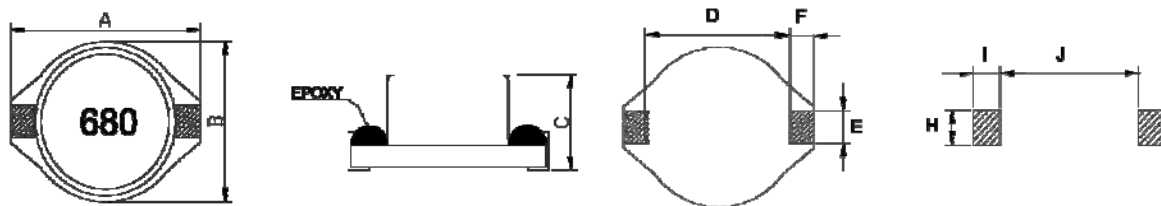
Type	Inductance (μH)	Current Range (A)
PS1608	1 ~ 10000	3.0 ~ 0.02
PS3316	1 ~ 1000	5.0 ~ 0.17
PS5022	10 ~ 1000	3.9 ~ 0.53

Performance Characteristics

Saturation Rated Current (IDC)	The DC current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
Temperature Rise Current (I rms)	The actual current when temperature of coil becomes Δ40°C. (Ta=25°C)
Operating Temperature Range	-40 ~ 85°C

How to Order

1	2	3	4	5	6	7	8	9	10	11
P	S	1	6	0	8	M	T	1	0	1
Product Series		Size	Dimensions (mm)	Tolerance		Packaging			Inductance	
PS	SMD Power Inductor	1608	6.6x4.45x2.92	Code	Tol	Code	Description	Size	Quantity	Code Inductance (μH)
		3316	12.95x9.4x5.21	K	±10%	T	13" Tape and Reel	1608	2,000	1R1 1.1
		5022	18.54x15.24x7.62	M	±20%			3316	1,000	470 47
								5022	250	101 100
										332 3300
										103 10000



Mechanical Specifications

Type / Code	A max.	B max.	C max.	D	E	F	H	I	J	Unit
PS1608	0.260 6.60	0.175 4.45	0.115 2.92	0.170 4.32	0.050 1.27	0.040 1.02	0.140 3.56	0.055 1.40	0.160 4.06	inches mm
PS3316	0.510 12.95	0.370 9.40	0.205 5.21	0.300 7.62	0.100 2.54	0.100 2.54	0.110 2.79	0.115 2.92	0.290 7.37	inches mm
PS5022	0.730 18.54	0.600 15.24	0.300 7.62	0.500 12.70	0.100 2.54	0.100 2.54	0.110 2.79	0.115 2.92	0.490 12.45	inches mm

Electrical Specifications – PS1608

Type / Code	L (μ H)	Tolerance	Test Condition		DCR (Ω) max	SRF ref (MHz)	Q min.	I _{rms} (A) max.
			L	Q				
1R0	1	M	100KHz, 0.1V	200KHz, 0.1V	0.040	250	30	3.00
1R5	1.5	M	100KHz, 0.1V	200KHz, 0.1V	0.045	125	30	2.30
2R2	2.2	M	100KHz, 0.1V	200KHz, 0.1V	0.050	120	40	1.80
3R3	3.3	M	100KHz, 0.1V	200KHz, 0.1V	0.055	120	40	1.60
4R7	4.7	M	100KHz, 0.1V	200KHz, 0.1V	0.060	105	40	1.40
6R8	6.8	M	100KHz, 0.1V	200KHz, 0.1V	0.065	50	40	1.20
100	10	M	100KHz, 0.1V	200KHz, 0.1V	0.075	38	40	1.00
150	15	M	100KHz, 0.1V	100KHz, 0.1V	0.090	33	40	0.80
220	22	M	100KHz, 0.1V	100KHz, 0.1V	0.11	25	40	0.70
330	33	M	100KHz, 0.1V	100KHz, 0.1V	0.19	20	40	0.60
470	47	M	100KHz, 0.1V	100KHz, 0.1V	0.23	20	40	0.50
680	68	M	100KHz, 0.1V	100KHz, 0.1V	0.29	15	40	0.40
101	100	M	100KHz, 0.1V	100KHz, 0.1V	0.48	10	40	0.30
151	150	M	100KHz, 0.1V	100KHz, 0.1V	0.59	9	40	0.26
221	220	M	100KHz, 0.1V	100KHz, 0.1V	0.90	6	40	0.22
331	330	M	100KHz, 0.1V	100KHz, 0.1V	1.40	5	40	0.20
471	470	M	100KHz, 0.1V	100KHz, 0.1V	1.80	4	40	0.19
681	680	M	100KHz, 0.1V	100KHz, 0.1V	2.20	3	40	0.18
102	1000	M	100KHz, 0.1V	100KHz, 0.1V	3.40	2	40	0.15
152	1500	M	100KHz, 0.1V	100KHz, 0.1V	4.20	2	50	0.12
222	2200	M	100KHz, 0.1V	100KHz, 0.1V	8.50	2	50	0.10
332	3300	M	100KHz, 0.1V	100KHz, 0.1V	11.0	1	50	0.08
472	4700	M	100KHz, 0.1V	100KHz, 0.1V	13.9	1	50	0.06
682	6800	M	100KHz, 0.1V	100KHz, 0.1V	25.0	1	50	0.04
103	10000	M	100KHz, 0.1V	100KHz, 0.1V	32.8	0.8	50	0.02

Electrical Specifications – PS3316

Type / Code	L (μ H)	Tolerance	Test Condition	DCR (Ω) max	SRF ref (MHz)	IDC (A) max.	Irms (A) max.
1R0	1	M	100KHz, 0.1V	0.021	140	5.60	5.00
1R5	1.5	M	100KHz, 0.1V	0.022	120	5.20	4.50
2R2	2.2	M	100KHz, 0.1V	0.032	80	5.00	3.80
3R3	3.3	M	100KHz, 0.1V	0.039	70	3.90	3.30
4R7	4.7	M	100KHz, 0.1V	0.054	40	3.20	2.70
6R8	6.8	M	100KHz, 0.1V	0.075	38	2.80	2.20
100	10	M	100KHz, 0.1V	0.101	35	2.40	2.00
150	15	M	100KHz, 0.1V	0.150	25	2.00	1.50
220	22	M	100KHz, 0.1V	0.207	19	1.60	1.30
330	33	M	100KHz, 0.1V	0.334	15	1.40	1.10
470	47	M	100KHz, 0.1V	0.472	13	1.00	0.80
680	68	M	100KHz, 0.1V	0.660	10	0.90	0.70
101	100	M	100KHz, 0.1V	1.110	7	0.80	0.60
151	150	M	100KHz, 0.1V	1.550	6	0.60	0.50
221	220	M	100KHz, 0.1V	2.000	5	0.50	0.37
102	1000	M	100KHz, 0.1V	8.300	2	0.32	0.17

Electrical Specifications – PS5022

Type / Code	L (μ H)	Tolerance	Test Condition	DCR (Ω) max	SRF ref (MHz)	IDC (A) max.	Irms (A) max.
100	10	M	100KHz, 0.1V	0.040	30.0	8.00	3.90
150	15	M	100KHz, 0.1V	0.048	20.0	7.00	3.40
220	22	M	100KHz, 0.1V	0.059	18.0	6.00	3.10
330	33	M	100KHz, 0.1V	0.075	14.0	5.00	2.80
470	47	M	100KHz, 0.1V	0.097	10.0	4.00	2.40
680	68	M	100KHz, 0.1V	0.138	9.0	3.00	2.00
101	100	M	100KHz, 0.1V	0.207	7.0	2.40	1.70
151	150	M	100KHz, 0.1V	0.293	6.0	2.10	1.30
221	220	M	100KHz, 0.1V	0.470	5.0	1.90	1.10
331	330	M	100KHz, 0.1V	0.780	4.0	1.10	0.86
471	470	M	100KHz, 0.1V	1.080	3.0	1.10	0.73
681	680	M	100KHz, 0.1V	1.400	2.5	0.96	0.64
102	1000	M	100KHz, 0.1V	2.010	2.0	0.80	0.53