

- 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

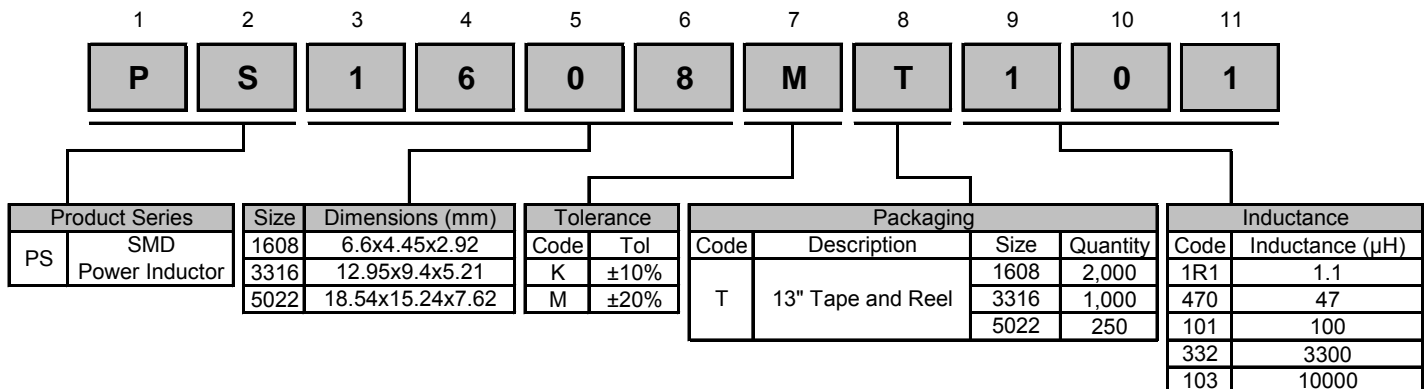


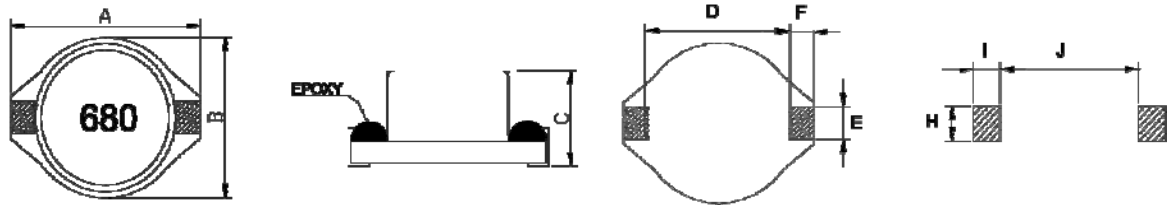
- Applications:**
- Portable telephones
 - GPS and PDAs
 - Personal computers
 - DC/DC converters

| 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





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

| Electrical Specifications – PS1608 | | | | | | | | |
|------------------------------------|--------|-----------|----------------|--------------|-------------|---------------|--------|---------------------------|
| Type / Code | L (μH) | 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 (μH) | 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 (μH) | 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 |