

SMT POWER INDUCTORS

Shielded Drum Core - P1174 Series



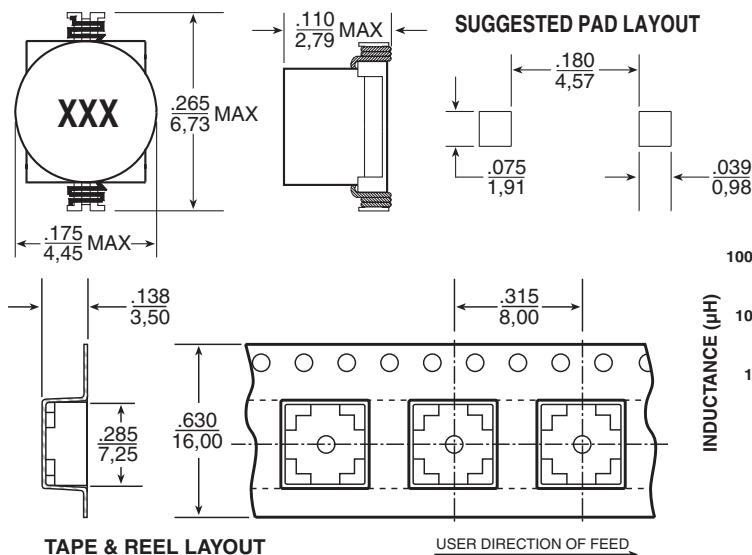
- Height:** 2.8mm Max
- Footprint:** 6.7mm x 4.5mm Max
- Current Rating:** up to 3.0A
- Inductance Range:** 1μH to 5000μH

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

| Part Number ^{7,8} | Inductance @ Irated Typical | Irated ² (ADC) | DCR (mΩ) (MAX) | Inductance @ 0A _{DC} (uH ±20%) | Saturation ³ Current (25°C) (A) | Heating ⁴ Current (A) | Q Factor @ 100kHz (MIN) | SRF MIN (MHz) |
|----------------------------|-----------------------------|---------------------------|----------------|---|--|----------------------------------|-------------------------|---------------|
| P1174.102 | 0.7 | 3 | 13 | 1.0 | 3 | 3.0 | 30 ⁵ | >40 |
| P1174.152 | 1.0 | 2.0 | 15 | 1.5 | 2.0 | 2.8 | 30 ⁵ | >40 |
| P1174.222 | 1.6 | 1.7 | 18 | 2.2 | 1.7 | 1.8 | 40 ⁵ | >40 |
| P1174.332 | 2.3 | 1.3 | 21 | 3.3 | 1.3 | 1.6 | 40 ⁵ | >40 |
| P1174.472 | 3.4 | 1.0 | 30 | 4.7 | 1.0 | 1.4 | 40 ⁵ | >40 |
| P1174.682 | 4.8 | 0.90 | 51 | 6.8 | 0.90 | 1.2 | 40 ⁵ | 36.0 |
| P1174.103 | 7.2 | 0.80 | 73 | 10 | 0.80 | 1.0 | 40 ⁵ | 30.0 |
| P1174.153 | 14 | 0.60 | 90 | 15 | 0.60 | 0.8 | 40 | 26.0 |
| P1174.223 | 18 | 0.50 | 120 | 22 | 0.50 | 0.7 | 40 | 21.0 |
| P1174.333 | 26 | 0.40 | 188 | 33 | 0.40 | 0.6 | 40 | 15.0 |
| P1174.473 | 32 | 0.35 | 230 | 47 | 0.35 | 0.5 | 40 | 13.0 |
| P1174.683 | 45 | 0.32 | 370 | 68 | 0.32 | 0.4 | 40 | 8.0 |
| P1174.104 | 74 | 0.28 | 470 | 100 | 0.28 | 0.3 | 40 | 6.0 |
| P1174.154 | 109 | 0.22 | 620 | 150 | 0.22 | 0.26 | 40 | 5.0 |
| P1174.224 | 161 | 0.15 | 950 | 220 | 0.15 | 0.22 | 40 | 4.5 |
| P1174.334 | 208 | 0.14 | 1340 | 330 | 0.14 | 0.20 | 40 | 3.5 |
| P1174.474 | 350 | 0.13 | 1800 | 470 | 0.13 | 0.19 | 40 | 3.0 |
| P1174.604 | 412 | 0.12 | 2550 | 600 | 0.12 | 0.18 | 40 | 2.7 |
| P1174.684 | 500 | 0.10 | 2650 | 680 | 0.10 | 0.17 | 40 | 2.5 |
| P1174.105 | 744 | 0.07 | 4000 | 1000 | 0.07 | 0.15 | 40 | 2.0 |
| P1174.335 | 2300 | 0.065 | 11 | 3300 | 0.065 | 0.09 | 40 | 1.0 |
| P1174.505 | 4900 | 0.05 | 18500 | 5000 ⁶ | 0.05 | 0.05 | 40 | 0.5 |

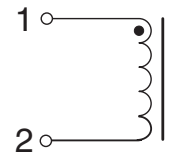
- NOTES:**
- The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
 - The rated current listed is the lower of saturation current @ 25°C or heating current.
 - The saturation current is the current which causes the inductance to drop by approximately 70% of its inductance at zero current.
 - The heating current is the DC current which causes the temperature of the part to increase by not more than 30°C.
 - Q Factor for indicated PNs is measured at 200kHz, all others at 100kHz.
 - Inductance tolerance for indicated part number is ±15%.
 - Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. P1174.102 becomes P1174.102T). Pulse complies to industry standard tape and reel specification EIA481.
 - To order RoHS compliant part, add the suffix "NL" to the part number (i.e. P1174.102 becomes P1174.102NL and P1174.102T becomes P1174.102NLT). **Please note:** the P1174.105, P1174.335, P1174.505 are not currently available as RoHS compliant (NL) parts.

Mechanical



Schematic

Weight 0.1 grams
 Tape & Reel 2500/reel
 Dimensions: $\frac{\text{Inches}}{\text{mm}}$
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$



TYPICAL INDUCTANCE VS. DC BIAS

