

# SMT POWER INDUCTORS

## Unshielded Drum Core - P0250 Series



-  **Height:** 7.1mm Max
-  **Footprint:** 18.5mm x 15.0mm Max
-  **Current Rating:** up to 8.6A
-  **Inductance Range:** 1μH to 1030μH

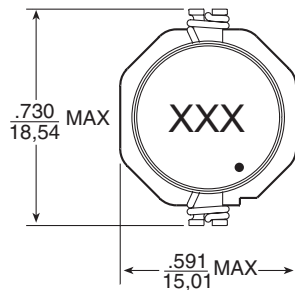
### Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

| Part <sup>6,7</sup><br>Number | Inductance<br>@ I <sub>PK</sub> A <sub>DC</sub><br>(μH ± 15%) | I <sub>rated</sub> <sup>5</sup><br>(A) | DCR (MAX)<br>(mΩ) | Saturation Current<br>(A) @ 25°C | Heating Current<br>(A) |
|-------------------------------|---------------------------------------------------------------|----------------------------------------|-------------------|----------------------------------|------------------------|
| P0250.102                     | 1.0                                                           | 8.6                                    | 9                 | 20.0                             | 8.60                   |
| P0250.222                     | 2.2                                                           | 7.1                                    | 14                | 16.0                             | 7.10                   |
| P0250.332                     | 3.3                                                           | 6.2                                    | 15                | 14.0                             | 6.20                   |
| P0250.562                     | 5.6                                                           | 5.3                                    | 20                | 12.0                             | 5.30                   |
| P0250.103                     | 10                                                            | 4.3                                    | 31                | 10.0                             | 4.30                   |
| P0250.153                     | 15                                                            | 4.0                                    | 36                | 8.0                              | 4.00                   |
| P0250.223                     | 22                                                            | 3.5                                    | 47                | 7.0                              | 3.50                   |
| P0250.333                     | 33                                                            | 3.0                                    | 66                | 5.5                              | 3.00                   |
| P0250.473                     | 47                                                            | 2.6                                    | 86                | 4.5                              | 2.60                   |
| P0250.683                     | 68                                                            | 2.3                                    | 130               | 3.5                              | 2.30                   |
| P0250.104                     | 100                                                           | 1.8                                    | 190               | 3.0                              | 1.80                   |
| P0250.154                     | 150                                                           | 1.5                                    | 250               | 2.6                              | 1.50                   |
| P0250.224                     | 220                                                           | 1.2                                    | 380               | 2.4                              | 1.20                   |
| P0250.334                     | 330                                                           | 1.0                                    | 560               | 1.9                              | 1.00                   |
| P0250.474                     | 470                                                           | .82                                    | 850               | 1.4                              | 0.82                   |
| P0250.684                     | 680                                                           | .72                                    | 1100              | 1.2                              | 0.72                   |
| P0250.105                     | 1000                                                          | .56                                    | 1800              | 1.0                              | 0.56                   |

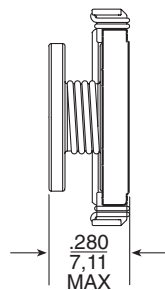
- NOTES:**
1. The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
  2. Inductance tested at 100kHz, 0.1 mV<sub>RMS</sub>
  3. Inductance drop = 10% typical at the saturation current.
  4. ΔT = 40°C rise typical at the heating current.
  5. The rated current is the lower of the saturation or heating current.
  6. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. P0250.102 becomes P0250.102T). Pulse complies to industry standard tape and reel specification EIA481.
  7. To order RoHS compliant part, add the suffix "NL" to the part number (i.e. P0250.102 becomes P0250.102NL and P0250.102T becomes P0250.102NLT).

### Mechanical

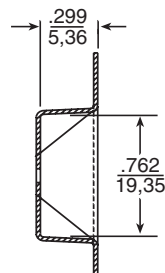
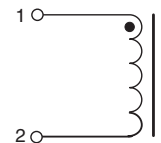
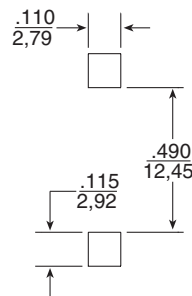
### Schematic



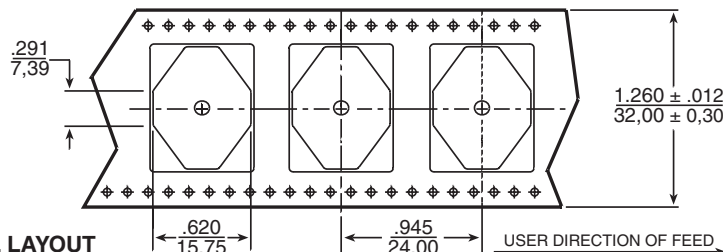
NOTE: Dot indicates start of winding



#### SUGGESTED PAD LAYOUT



#### TAPE & REEL LAYOUT



Weight . . . . . 3.6 grams  
Tape & Reel . . . . . 250/reel

**Dimensions:** Inches  
mm  
Unless otherwise specified,  
all tolerances are ± .010  
0,25