

# SMT POWER INDUCTORS

## Unshielded Drum Core - P0250NL Series



-  **Height:** 7.37mm Max
-  **Footprint:** 18.62mm x 15.14mm Max
-  **Current Rating:** up to 8.6A
-  **Inductance Range:** 1μH to 1030μH

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

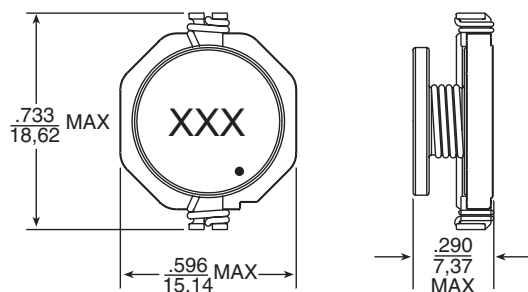
| Part <sup>6,7</sup><br>Number | Inductance<br>@ I <sub>PK</sub> A <sub>DC</sub><br>(μH ± 15%) | I <sub>rated</sub> <sup>5</sup><br>(A) | DCR (MAX)<br>(mΩ) | Saturation Current<br>(A) @ 25°C | Heating Current<br>(A) |
|-------------------------------|---------------------------------------------------------------|----------------------------------------|-------------------|----------------------------------|------------------------|
| P0250.102NL                   | 1.0                                                           | 8.6                                    | 9                 | 20.0                             | 8.60                   |
| P0250.222NL                   | 2.2                                                           | 7.1                                    | 14                | 16.0                             | 7.10                   |
| P0250.332NL                   | 3.3                                                           | 6.2                                    | 15                | 14.0                             | 6.20                   |
| P0250.562NL                   | 5.6                                                           | 5.3                                    | 20                | 12.0                             | 5.30                   |
| P0250.103NL                   | 10                                                            | 4.3                                    | 31                | 10.0                             | 4.30                   |
| P0250.153NL                   | 15                                                            | 4.0                                    | 36                | 8.0                              | 4.00                   |
| P0250.223NL                   | 22                                                            | 3.5                                    | 47                | 7.0                              | 3.50                   |
| P0250.333NL                   | 33                                                            | 3.0                                    | 66                | 5.5                              | 3.00                   |
| P0250.473NL                   | 47                                                            | 2.6                                    | 86                | 4.5                              | 2.60                   |
| P0250.683NL                   | 68                                                            | 2.3                                    | 130               | 3.5                              | 2.30                   |
| P0250.104NL                   | 100                                                           | 1.8                                    | 190               | 3.0                              | 1.80                   |
| P0250.154NL                   | 150                                                           | 1.5                                    | 250               | 2.6                              | 1.50                   |
| P0250.224NL                   | 220                                                           | 1.2                                    | 380               | 2.4                              | 1.20                   |
| P0250.334NL                   | 330                                                           | 1.0                                    | 560               | 1.9                              | 1.00                   |
| P0250.474NL                   | 470                                                           | .82                                    | 850               | 1.4                              | 0.82                   |
| P0250.684NL                   | 680                                                           | .72                                    | 1100              | 1.2                              | 0.72                   |
| P0250.105NL                   | 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. P0250.102NL becomes P0250.102NLT). Pulse complies to industry standard tape and reel specification EIA481.
7. The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "NL" suffix, but an RoHS compliant version is required, please contact Pulse for availability.

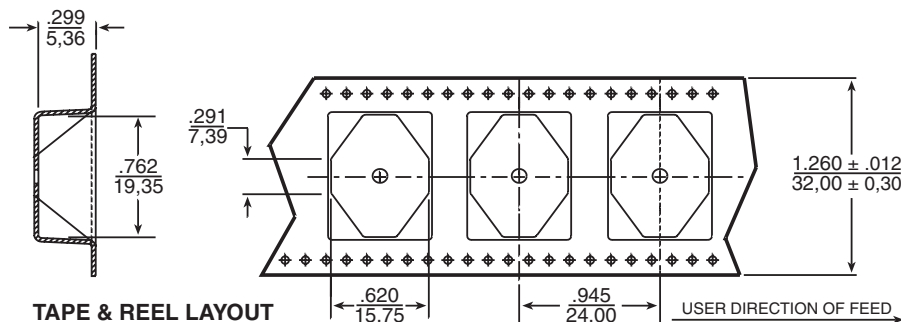
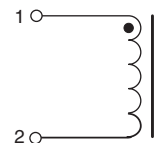
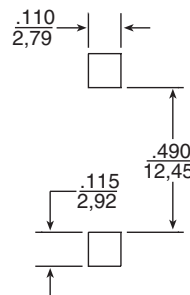
### Mechanical

### Schematic



NOTE: Dot indicates start of winding

#### SUGGESTED PAD LAYOUT



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

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