

# 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: 1 $\mu$ H to 1030 $\mu$ H

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

| Part Number   | Inductance @ IPK ADC ( $\mu$ H $\pm$ 15%) | I <sub>rated</sub> (A) | DCR (MAX) (m $\Omega$ ) | Saturation Current (A) @ 25°C | Heating Current (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:

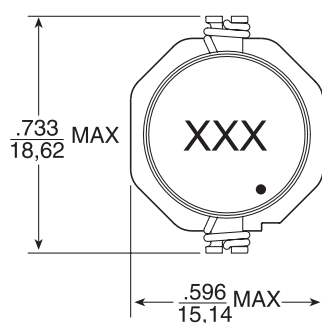
- The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
- Inductance tested at 100kHz, 0.1 mV<sub>RMS</sub>
- Inductance drop = 10% typical at the saturation current.
- $\Delta T$  = 40°C rise typical at the heating current.
- The rated current is the lower of the saturation or heating current.
- 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.
- 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.

\* Contact Pulse for availability

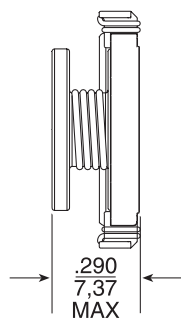
## Mechanical

## Schematic

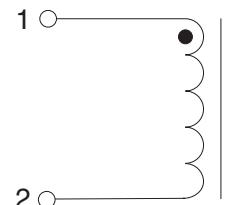
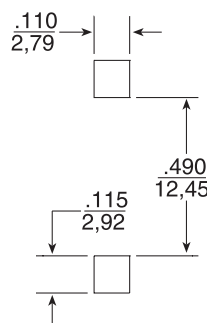
### P0250NL



NOTE: Dot indicates start of winding



### SUGGESTED PAD LAYOUT

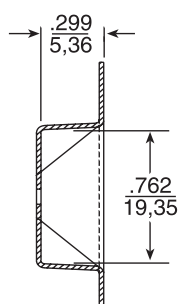


Weight .....3.6 grams

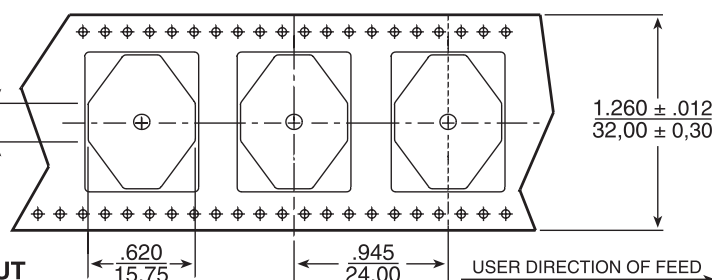
Tape & Reel .....250/reel

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,  
all tolerances are  $\pm \frac{.010}{0,25}$



### TAPE & REEL LAYOUT



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