

# SMT Power Inductors

Unshielded Drum Core - PA0390NL Series



- Height:** 5.1 Max
- Footprint:** 8.89mm x 6.10mm Max
- Current Rating:** up to 6.0A
- Inductance Range:** 0.6μH to 113μH

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

| Part <sup>6,7</sup><br>Number | Inductance<br>@ 10K ADC<br>(μH ±20%) | I <sub>rated</sub> <sup>5</sup><br>(A) | DCR (MAX)<br>(mΩ) | Saturation Current<br>(A) @ 25°C | Heating Current<br>(A) |
|-------------------------------|--------------------------------------|----------------------------------------|-------------------|----------------------------------|------------------------|
| PA0390.471NL                  | 0.6                                  | 6                                      | 9.7               | 7.7                              | 6                      |
| PA0390.102NL                  | 1.2                                  | 4.4                                    | 17.7              | 5.3                              | 4.4                    |
| PA0390.152NL                  | 1.6                                  | 4.2                                    | 20                | 4.5                              | 4.2                    |
| PA0390.222NL                  | 2.6                                  | 3.1                                    | 36.3              | 3.5                              | 3.1                    |
| PA0390.332NL                  | 3.8                                  | 2.9                                    | 42.8              | 3                                | 2.9                    |
| PA0390.472NL                  | 5.2                                  | 2.2                                    | 54.4              | 2.6                              | 2.2                    |
| PA0390.682NL                  | 6.9                                  | 1.7                                    | 89.7              | 2.2                              | 1.7                    |
| PA0390.103NL                  | 11                                   | 1.5                                    | 110.7             | 1.9                              | 1.5                    |
| PA0390.153NL                  | 16                                   | 1.2                                    | 174.7             | 1.5                              | 1.2                    |
| PA0390.223NL                  | 23                                   | 1                                      | 254.1             | 1.2                              | 1                      |
| PA0390.333NL                  | 36                                   | 0.82                                   | 367               | 0.99                             | 0.82                   |
| PA0390.473NL                  | 48                                   | 0.72                                   | 474               | 0.87                             | 0.72                   |
| PA0390.683NL                  | 73                                   | 0.58                                   | 732               | 0.67                             | 0.58                   |
| PA0390.104NL                  | 113                                  | 0.47                                   | 1109              | 0.53                             | 0.47                   |

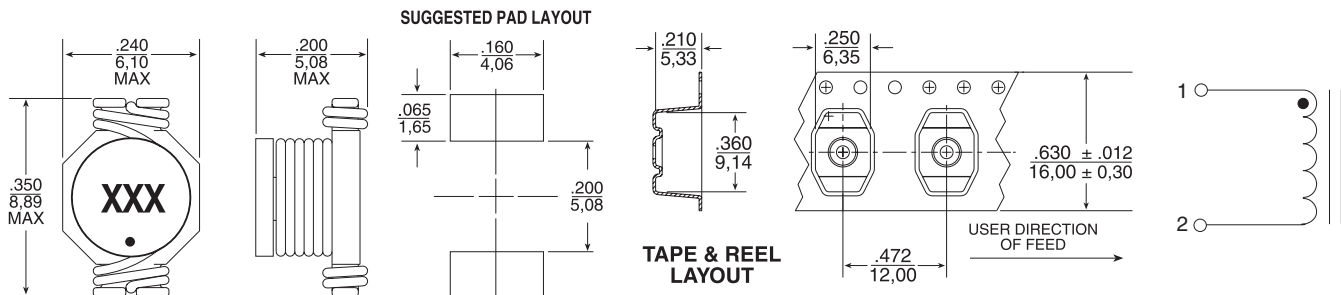
### Notes:

- The temperature of the component (ambient plus temperature rise) must be within the specified operating temperature range.
- Inductance tested at 100kHz, 250mV<sub>RMS</sub>.
- Inductance drop = 10% typical at the Saturation Current.
- ΔT = 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. PA0390.102NL becomes PA0390.102NLT). Pulse complies to industry standard tape and reel specifications 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.

## Mechanical

## Schematic

### PA0390.XXXNL



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