

# SMT POWER INDUCTORS

## Shielded Toroid - PA0040NL Series



- Height:** 1.8mm Max
- Footprint:** 7.8mm x 5.2mm Max
- Current Rating:** up to 1.84A
- Inductance Range:** .80μH to 32.5μH

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

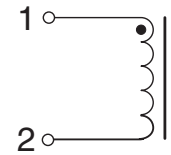
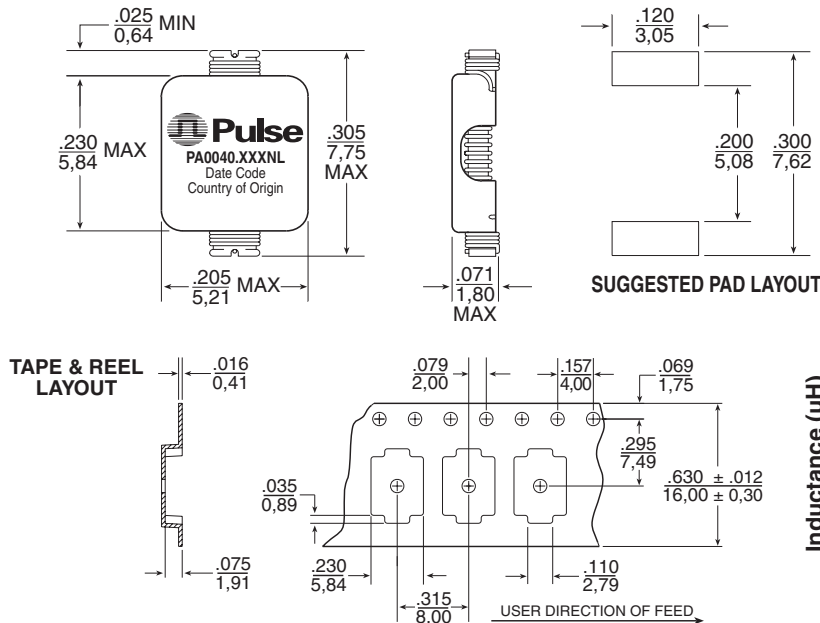
Part Number <sup>4</sup>	Inductance @ Irated (μH MIN)	Irated <sup>1</sup> (A <sub>DC</sub> )	DCR (mΩ)		Inductance @ 0A <sub>DC</sub> (μH ±20%)	Saturation Current <sup>2</sup> (A <sub>DC</sub> )		Heating Current <sup>3</sup> (A <sub>DC</sub> TYP)
			TYP	MAX		25°C	100°C	
PA0040.102NL	0.80	1.84	80	103	1.0	2.10	1.70	1.84
PA0040.222NL	1.60	1.40	115	130	2.2	1.40	1.12	1.52
PA0040.472NL	3.22	0.98	150	180	4.7	0.98	0.80	1.22
PA0040.103NL	6.96	0.67	214	240	10.0	0.67	0.56	1.04
PA0040.153NL	10.71	0.54	260	300	15.0	0.54	0.48	1.00
PA0040.223NL	15.26	0.45	310	360	22.0	0.45	0.40	0.88
PA0040.333NL	23.59	0.36	470	556	33.0	0.36	0.32	0.80
PA0040.473NL	32.48	0.31	700	833	47.0	0.31	0.26	0.72

#### NOTES:

- The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- The saturation current is the current which causes the inductance to drop by 30% at the stated ambient temperatures (25°C, 100°C). This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
- The heating current is the dc current which causes the temperature of the part to increase by approximately 40°C. This current is determined by mounting the component on a PCB and applying the current to the device for 30 minutes without any forced air.
- The Leaded version of these parts is available by removing the "NL" suffix when ordering.

### Mechanical

### Schematic

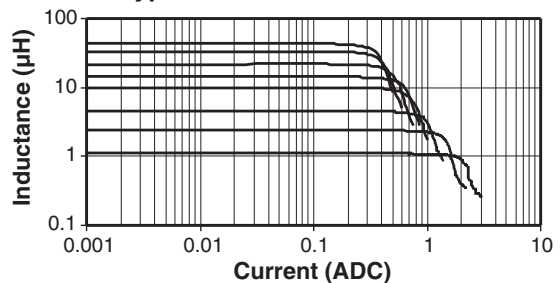


Weight . . . . .0.10 grams  
Tape & Reel . . . . .3,900/reel

Dimensions: Inches  
mm

Unless otherwise specified, all tolerances are ± .010 / 0.25

### Typical Inductance vs. DC Bias



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