

# SMT POWER INDUCTORS

## Unshielded Drum Core - PF0382NL Series



- Height:** 11.3mm Max
- Footprint:** 13.0mm x 9.4mm Max
- Current Rating:** up to 4.9A
- Inductance Range:** 10 $\mu$ H to 1000 $\mu$ H
- RoHS compliant version available on request**

### Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C <sup>7</sup>

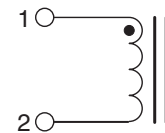
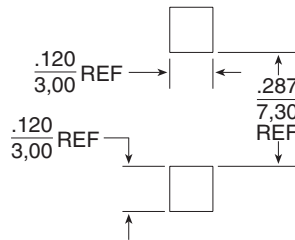
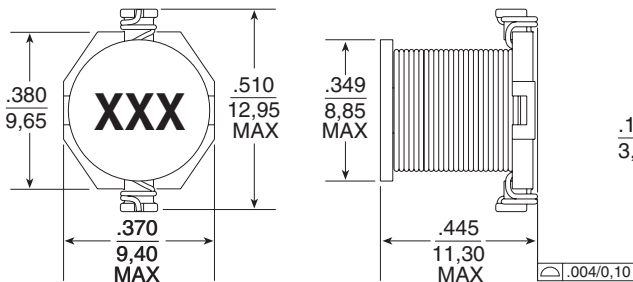
Part <sup>5,6</sup> Number	Inductance <sup>1</sup> @ Irated <sup>2</sup> ( $\mu$ H TYP)	Irated <sup>2</sup> (A)	DCR (m $\Omega$ MAX)	Inductance @ 0Aac ( $\mu$ H $\pm$ 20%)	Saturation <sup>3</sup> Current Isat (A)	Heating <sup>4</sup> Current Ibc (A)
PF0382.103NL	9	4.90	24	10	8.30	4.90
PF0382.153NL	14	4.20	31	15	7.10	4.20
PF0382.223NL	20	3.50	47	22	5.60	3.50
PF0382.333NL	30	3.10	65	33	4.30	3.10
PF0382.473NL	42	2.70	90	47	3.80	2.70
PF0382.683NL	61	1.90	130	68	3.10	1.90
PF0382.104NL	90	1.50	200	100	2.60	1.50
PF0382.154NL	140	1.20	280	150	2.10	1.20
PF0382.224NL	200	1.10	360	220	1.70	1.10
PF0382.334NL	297	0.80	580	330	1.35	0.80
PF0382.474NL	423	0.60	860	470	1.15	0.60
PF0382.684NL	612	0.50	1200	680	1.05	0.50
PF0382.105NL	900	0.20	2000	1000	0.85	0.20

- NOTES:**
- Inductance at Irated is a typical inductance value measured when the inductor is subjected to the rated current.
  - The rated current as listed is either the saturation current at 25°C or the heating current, depending on which value is lower.
  - The saturation current Isat is the current which causes the inductance to drop by 10% (typical) at an ambient temperature of 25°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 Ibc is the DC current which causes the temperature rise of the part to increase by approximately 40°C. This current is determined by mounting the component on a typical application PCB and applying the current to the device for 30 minutes.
  - Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PF0382.103NL becomes PF0382.103NLT). 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.
  - The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

## Mechanical

## Schematic

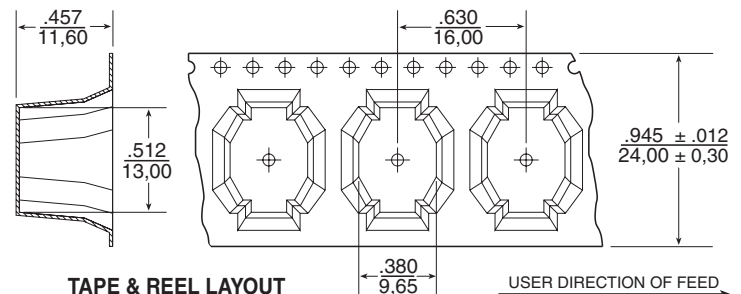
### SUGGESTED PAD LAYOUT



Weight . . . . . 2.5 grams  
Tape & Reel . . . . . 280/reel

Dimensions: Inches  
mm

Unless otherwise specified, all tolerances are  $\pm$  .010 / 0,25



TAPE & REEL LAYOUT

USER DIRECTION OF FEED