






SMT POWER INDUCTORS

Unshielded Drum Core - PF0638NL Series



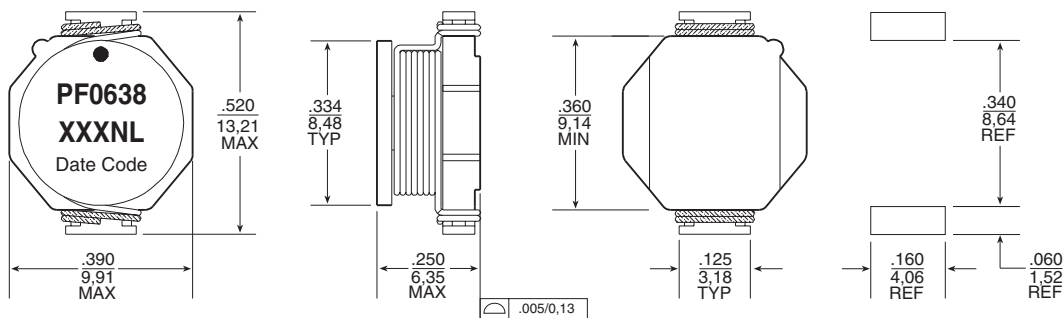
-  **Height:** 6.35mm Max
-  **Footprint:** 13.21mm x 9.91mm Max
-  **Current Rating:** up to 17A
-  **Inductance Range:** 0.12μH to 10μH
-  **260°C** reflow peak temperature qualified

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C

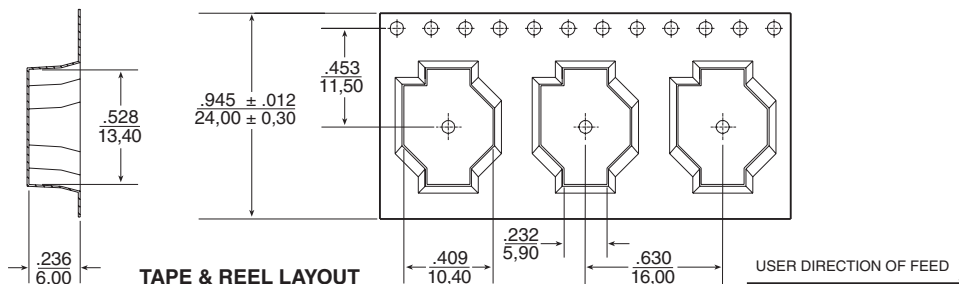
| Part ⁴ Number | Inductance @0Adc (μH ±20%) | I _{rated} ¹ (A) | DCR (mΩ MAX) | Saturation ² Current I _{sat} (A) | Heating ³ Current I _{dc} (A) | SRF (MHz TYP) |
|--------------------------|----------------------------|-------------------------------------|--------------|------------------------------------------------------|--------------------------------------------------|---------------|
| PF0638.121NL | 0.12 | 17 | 1.5 | 28 | 17 | 200 |
| PF0638.331NL | 0.33 | 16 | 2 | 20 | 16 | 200 |
| PF0638.681NL | 0.68 | 12 | 5 | 13 | 12 | 150 |
| PF0638.102NL | 1.0 | 10 | 6 | 11 | 10 | 100 |
| PF0638.152NL | 1.5 | 9 | 10 | 9 | 9 | 90 |
| PF0638.222NL | 2.2 | 7.4 | 11 | 7.8 | 7.4 | 80 |
| PF0638.272NL | 2.7 | 6.6 | 12 | 7 | 6.6 | 65 |
| PF0638.332NL | 3.3 | 5.9 | 14 | 6.4 | 5.9 | 60 |
| PF0638.392NL | 3.9 | 5.3 | 15 | 5.9 | 5.3 | 50 |
| PF0638.472NL | 4.7 | 4.8 | 18 | 5.4 | 4.8 | 45 |
| PF0638.682NL | 6.8 | 4.4 | 25 | 4.6 | 4.4 | 40 |
| PF0638.103NL | 10 | 3.7 | 34 | 4 | 3.7 | 32 |

Mechanical

Schematic



SUGGESTED PAD LAYOUT



TAPE & REEL LAYOUT

Weight1.3 grams
Tape & Reel.....600/reel

Dimensions: Inches
mm
Unless otherwise specified,
all tolerances are ± .004
0,10

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Notes from Tables

1. The rated current as listed is either the saturation current @ 25°C or the heating current depending on which value is lower.
2. The saturation current I_{sat} 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.
3. The heating current I_{dc} 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.
4. Optional Tape and Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PF0638.103NL becomes PF0638.103NLT). Pulse complies to industry standard tape and reel specification EIA481.

Typical Inductance vs Current Characteristics

