

SMT Power Inductors

Unshielded Drum Core - PF0581NL Series



- ⌚ **Height:** 4.42mm Max
- ⌚ **Footprint:** 10.32mm Typ x 9.32mm Max
- ⌚ **Current Rating:** up to 2.5A
- ⌚ **Inductance Range:** 10μH to 560μH
- ⌚ 260°C reflow peak temperature qualified

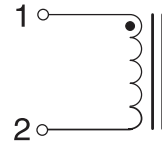
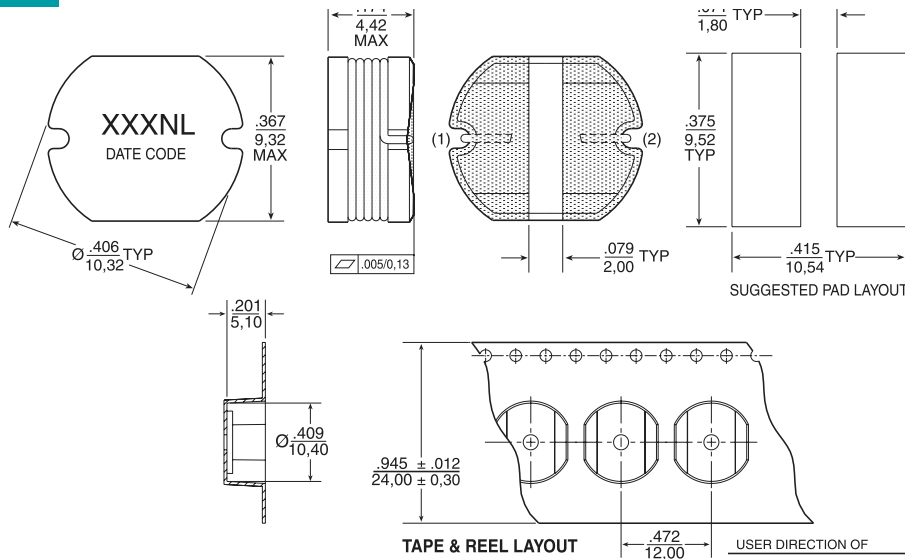
Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C⁶

| Part ⁵ Number | Inductance ¹ @ I _{rated} (μH TYP) | I _{rated} ² (A) | DCR (MAX) (mΩ MAX) | Inductance @ 0A _{DC} (μH ± 15%) | Saturation Current ³ I _{SAT} (A) | Heating Current ⁴ I _{bc} (A) |
|-----------------------------|---|--|-----------------------|--|--|--|
| PF0581.103NL | 9.5 | 2.50 | 43 | 10 | 2.50 | 3.25 |
| PF0581.123NL | 11 | 2.30 | 48 | 12 | 2.30 | 3.15 |
| PF0581.153NL | 14 | 2.00 | 60 | 15 | 2.00 | 2.70 |
| PF0581.183NL * | 17 | 1.90 | 66 | 18 | 1.90 | 2.50 |
| PF0581.223NL | 21 | 1.70 | 84 | 22 | 1.70 | 2.25 |
| PF0581.273NL * | 26 | 1.50 | 96 | 27 | 1.50 | 2.05 |
| PF0581.333NL | 31 | 1.30 | 115 | 33 | 1.30 | 1.90 |
| PF0581.393NL | 37 | 1.20 | 151 | 39 | 1.20 | 1.73 |
| PF0581.473NL | 45 | 1.10 | 166 | 47 | 1.10 | 1.65 |
| PF0581.563NL | 53 | 1.00 | 199 | 56 | 1.00 | 1.52 |
| PF0581.683NL | 65 | 0.93 | 233 | 68 | 0.93 | 1.37 |
| PF0581.823NL | 78 | 0.85 | 262 | 82 | 0.85 | 1.29 |
| PF0581.104NL | 95 | 0.76 | 333 | 100 | 0.76 | 1.16 |
| PF0581.124NL | 110 | 0.70 | 376 | 120 | 0.70 | 1.10 |
| PF0581.154NL | 140 | 0.63 | 500 | 150 | 0.63 | 0.97 |
| PF0581.184NL * | 170 | 0.56 | 620 | 180 | 0.56 | 0.84 |
| PF0581.224NL | 210 | 0.53 | 721 | 220 | 0.53 | 0.79 |
| PF0581.274NL * | 260 | 0.46 | 949 | 270 | 0.46 | 0.68 |
| PF0581.334NL | 310 | 0.42 | 1100 | 330 | 0.42 | 0.63 |
| PF0581.394NL | 370 | 0.39 | 1245 | 390 | 0.39 | 0.60 |
| PF0581.474NL | 450 | 0.35 | 1526 | 470 | 0.35 | 0.53 |
| PF0581.564NL | 530 | 0.32 | 1870 | 560 | 0.32 | 0.51 |

Mechanical

Schematic

PF0581.XXXNL



Weight1.2 grams

Tape & Reel900/reel

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

Unless otherwise specified,
all tolerances are $\pm \frac{.004}{0,10}$

Notes from Tables:

- Inductance at I_{rated} is a typical inductance value measured when the inductor is subjected to the rated current.
 - The rated current listed is the lower of the saturation current @ 25°C or the heating current.
 - The saturation current, I_{sat} , is the current at which the component inductance drops by 20% (maximum) 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, I_{hc} , is the DC current required to raise the component temperature by approximately 45°C. The heating current is determined by mounting the component on a typical PCB and applying current for 30 minutes.
 - Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PF0581.103NL becomes PF0581.103NLT). Pulse complies to industry standard tape and reel specification EIA481.
 - The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- * Contact Pulse for availability

Typical Inductance vs Current Characteristics

