



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# SMT POWER INDUCTORS

## Unshielded Drum Core - PF0580NL Series



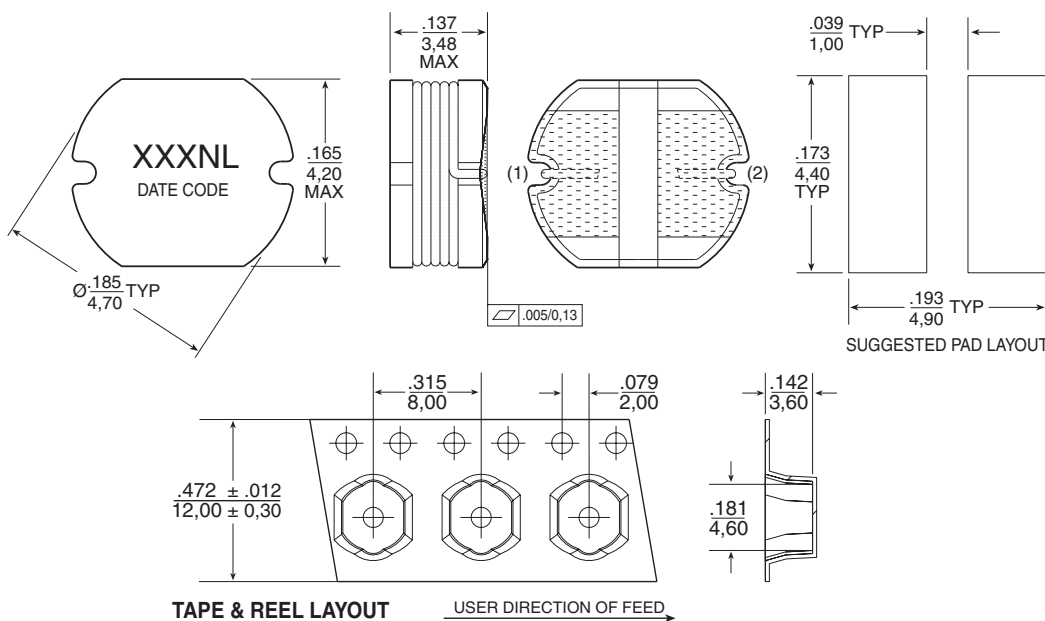
- Height:** 3.48mm Max
- Footprint:** 4.7mm Typ x 4.2mm Max
- Current Rating:** up to 3.1A
- Inductance Range:** 1μH to 65μH
- 260°C reflow peak temperature qualified**

### Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C<sup>6</sup>

Part <sup>5</sup> Number	Inductance @Irated <sup>1</sup> (μH TYP)	Irated <sup>2</sup> (A)	DCR (mΩ MAX)	Inductance @0Adc (μH ±15%)	Saturation <sup>3</sup> Current Isat (A)	Heating <sup>4</sup> Current Idc (A)
PF0580.102NL	1.0	3.1	35	1.0	3.6	3.1
PF0580.152NL	1.4	2.7	40	1.5	2.7	2.7
PF0580.182NL	1.7	2.4	45	1.8	2.4	2.6
PF0580.222NL	2.1	2.2	49	2.2	2.2	2.4
PF0580.272NL	2.6	2.0	58	2.7	2.0	2.3
PF0580.332NL	3.1	1.8	63	3.3	1.8	2.25
PF0580.382NL	3.6	1.7	68	3.8	1.7	2.2
PF0580.472NL	4.5	1.6	77	4.7	1.6	2.0
PF0580.562NL	5.3	1.4	90	5.6	1.4	1.9
PF0580.682NL	6.5	1.3	100	6.8	1.3	1.8
PF0580.822NL	7.8	1.2	111	8.2	1.2	1.6
PF0580.103NL	9.5	1.1	132	10	1.1	1.5
PF0580.123NL	11	1.0	160	12	1.0	1.4
PF0580.153NL	14	0.85	197	15	0.85	1.3
PF0580.183NL	17	0.80	255	18	0.80	1.1
PF0580.223NL	21	0.75	280	22	0.75	1.0
PF0580.273NL	26	0.65	384	27	0.65	0.90
PF0580.333NL	31	0.58	427	33	0.58	0.85
PF0580.393NL	37	0.55	490	39	0.55	0.80
PF0580.473NL	45	0.50	645	47	0.50	0.70
PF0580.563NL	53	0.46	700	56	0.46	0.67
PF0580.683NL	65	0.41	827	68	0.41	0.62

### Mechanical

### Schematic



Weight ..... 0.22 grams  
Tape & Reel ..... 1950/reel

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

### Notes from Tables

1. Inductance at  $I_{rated}$  is a typical inductance value for the component taken at rated current.
2. The rated current listed is the lower of the saturation current @ 25°C or the heating current.
3. The saturation current,  $I_{sat}$ , is the current at which the component inductance drops by 10% (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.
4. 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.
5. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PF0580.102NL becomes PF0580.102NLT). Pulse complies to industry standard tape and reel specification EIA481.
6. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

### Typical Inductance vs Current Characteristics

