



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!



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# SMT POWER INDUCTORS

## Unshielded Drum Core - PF0638NL Series



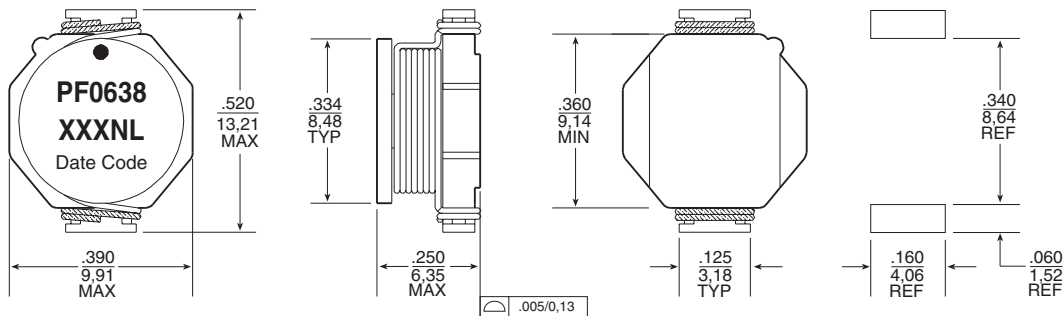
-  **Height:** 6.35mm Max
-  **Footprint:** 13.21mm x 9.91mm Max
-  **Current Rating:** up to 17A
-  **Inductance Range:** 0.12μH to 10μH
-  **260°C** reflow peak temperature qualified

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

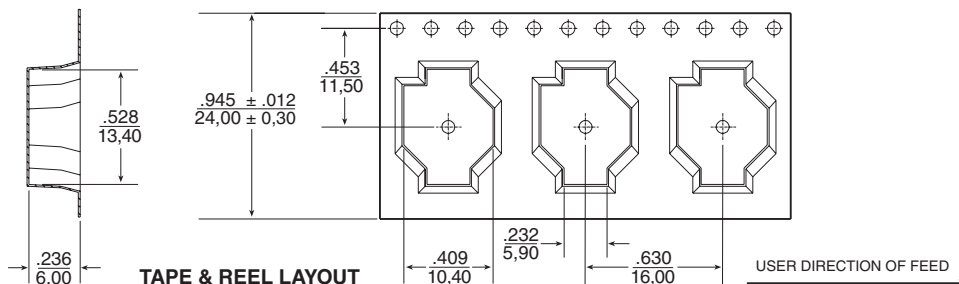
Part <sup>4</sup> Number	Inductance @0Adc (μH ±20%)	I <sub>rated</sub> <sup>1</sup> (A)	DCR (mΩ MAX)	Saturation <sup>2</sup> Current I <sub>sat</sub> (A)	Heating <sup>3</sup> Current I <sub>dc</sub> (A)	SRF (MHz TYP)
PF0638.121NL	0.12	17	1.5	28	17	200
PF0638.331NL	0.33	16	2	20	16	200
PF0638.681NL	0.68	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

Weight .....1.3 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

