

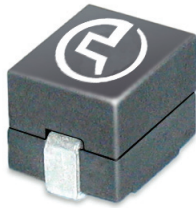


**THE DATASHEET OF  
PA2607.181NLT**



# SMT POWER INDUCTORS

Power Beads - PA2607NL and PA2607AHL Series



- Current Rating:** Over 90Apk
- Inductance Range:** 115nH to 300nH
- Height:** 7.5mm and 7.6mm Max
- Footprint:** 10.4mm x 7.9mm Max
- Halogen Free**

## Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C<sup>7</sup>

Part Number	Inductance <sup>1</sup> @ 0Adc (nH +/- 15%)	Inductance @Irated (nH TYP)	Irated <sup>2</sup> (Adc)	DCR <sup>3</sup> (mΩ nominal)	Saturation Current <sup>4</sup> (A TYP)		Heating Current (A TYP)	Height mm* (inches)
					25°C	100°C		
PA2607.121NL	115	115	41	0.29 +/- 7% (.XXNL) 0.29 +/- 5% (.XXXAHL)	94	80	41	7.4* (.291)
PA2607.151NL	150	150	41		72	61		
PA2607.181NL	175	175	41		62	53		
PA2607.211NL	215	195	41		48	41		
PA2607.231NL	230	208	37		43	37		7.3* (.287)
PA2607.271NL	270	241	31		37	34		
PA2607.301NL	300	260	27		32	28		

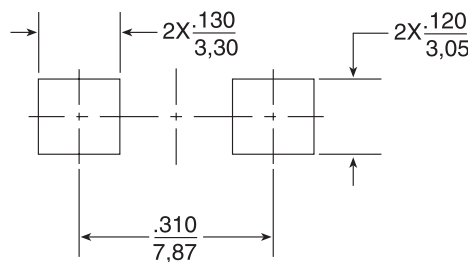
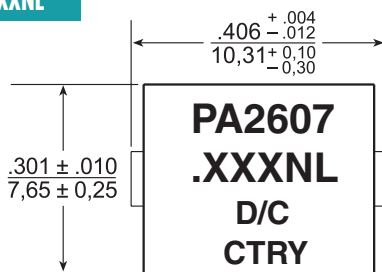
### NOTES:

- Inductance measured at 100kHz, 100mVrms.
- The rated current as listed is either the saturation current or the heating current depending on which value is lower.
- The nominal DCR is measured from point (a) to point (b), as shown below on the mechanical drawing. The standard part (PA2607.XXXNL) has a DCR tolerance of +/-7%. A tighter DCR tolerance of +/-5% is available by changing the NL suffix to AHL (i.e. PA2607.211NL becomes PA2607.211AHL).
- The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C and 100°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 is the DC current which causes the part temperature to increase by approximately 40°C.
- In high volt\*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA2607.211NL becomes PA2607.211NLT). Pulse complies to industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=24mm), pitch (Po=16.0mm) and depth (Ko=7.6mm).
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

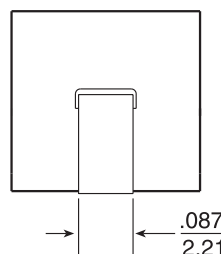
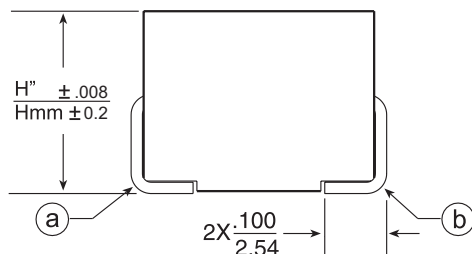
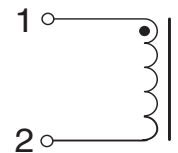
### Mechanical

### Schematic

#### PA2607.XXXNL



#### SUGGESTED PAD LAYOUT

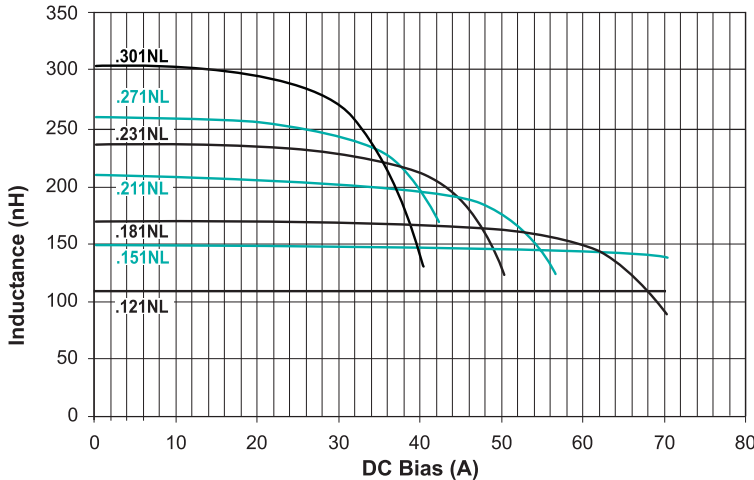


\* Please note that marking shown is for the PA2607.XXXNL parts. Marking for AHL parts is the same except PA2607.XXXNL is replaced by PA2607.XXXAHL.

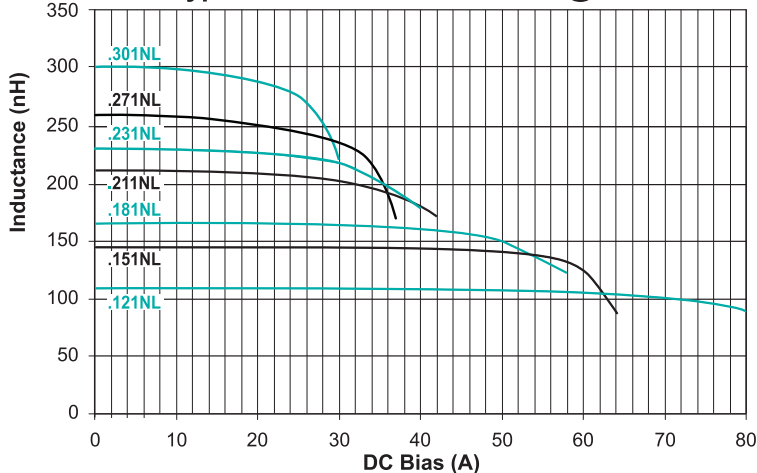
Weight . . . . . 2.4 grams  
Tape & Reel . . . . . 400/reel

Dimensions: Inches  
mm  
Unless otherwise specified,  
all tolerances are ± .010 / 0.25

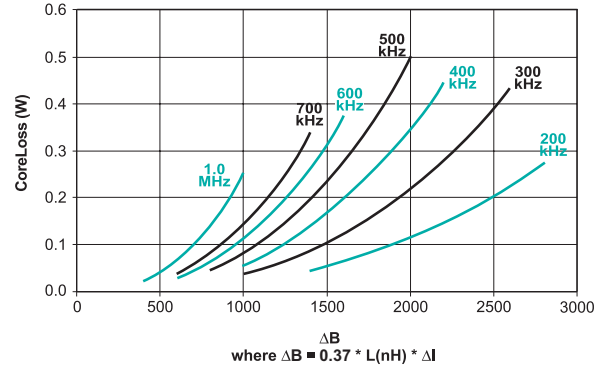
Typical Inducance vs DC Bias @ 25°C



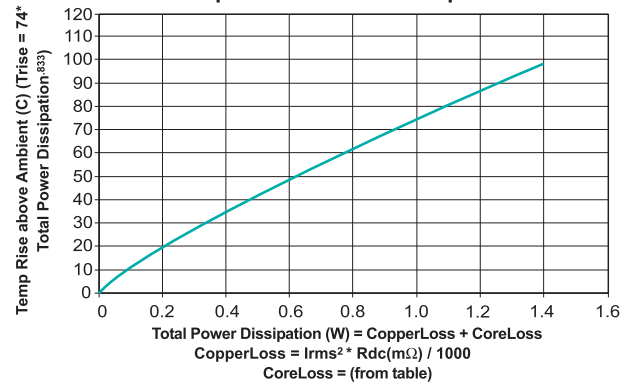
Typical Inducance vs DC Bias @ 100°C



CoreLoss (W)



Temp Rise vs Power Dissipation



**Pulse Worldwide Headquarters**  
12220 World Trade Drive  
San Diego, CA 92128  
U.S.A.

Tel: 858 674 8100  
Fax: 858 674 8262

**Pulse Europe**  
Einsteinstrasse 1  
D-71083 Herrenberg  
Germany

Tel: 49 7032 7806 0  
Fax: 49 7032 7806 135

**Pulse China Headquarters**  
B402, Shenzhen Academy of  
Aerospace Technology Bldg.  
10th Kejinan Road  
High-Tech Zone  
Nanshan District  
Shenzhen, PR China 518057

Tel: 86 755 33966678  
Fax: 86 755 33966700

**Pulse North China**  
Room 2704/2705  
Super Ocean Finance Ctr.  
2067 Yan An Road West  
Shanghai 200336  
China

Tel: 86 21 62787060  
Fax: 86 2162786973

**Pulse South Asia**  
135 Joo Seng Road  
#03-02  
PM Industrial Bldg.  
Singapore 368363

Tel: 65 6287 8998  
Fax: 65 6287 8998

**Pulse North Asia**  
3F, No. 198  
Zhongyuan Road  
Zhongli City  
Taoyuan County 320  
Taiwan R. O. C.  
Tel: 886 3 4356768  
Fax: 886 3 4356823 (Pulse)  
Fax: 886 3 4356820 (FRE)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2014. Pulse Electronics, Inc. All rights reserved.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View PA2607.181NLT on WIN SOURCE](#)

 [Pulse Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management