



**THE DATASHEET OF
PA2202.231NL**



SMT Power Inductors

Power Beads - PA2202.XXXNL Series



- Current Rating:** Over 75A_{pk}
- Inductance Range:** 120nH to 360nH
- Height:** 6.0mm Max
- Footprint:** 12.1mm x 10.0mm Max

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +130°C⁷

Part Number	Inductance @0ADC (nH ±15%)	Inductance @I _{rated} (nH TYP)	I _{rated} ¹ (A _{DC})	DCR ² (mΩ)	Inductance @I _{sat} (nH TYP)	Inductance @I _{sat} (nH MIN)	Saturation Current ³ (A TYP)		Heating ⁴ Current (A TYP)
							25°C	100°C	
PA2202.121NL	120	120	36	0.48 ± 6.5%	96	78	84	75	36
PA2202.181NL	180	180	36		144	117	64	52	
PA2202.211NL	215	215	36		172	140	53	47	
PA2202.231NL	230	230	36		184	150	47	44	
PA2202.321NL	325	282	31		260	211	34	31	
PA2202.361NL	365	315	27		292	237	30	27	

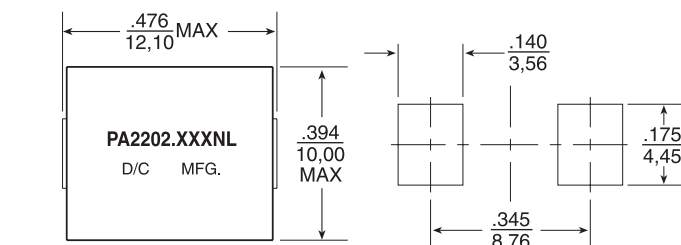
NOTES:

- 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 saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C and 100°C). Inductance at I_{sat} is the minimum inductance when measured at I_{sat} (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. This current is determined by soldering the component on a typical application PCB, and then applying the current to the device for 30 minutes.
- 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. PA2202.121NL becomes PA2202.121NLT). 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.

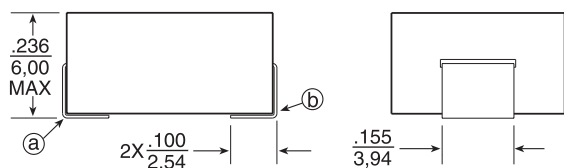
Mechanical

Schematic

PA2202.XXXNL

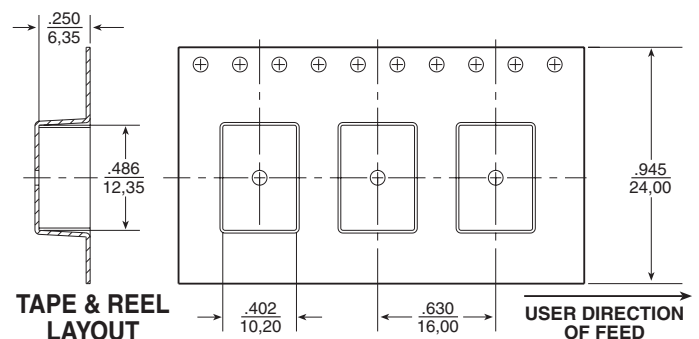
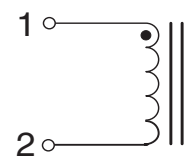


SUGGESTED PAD LAYOUT

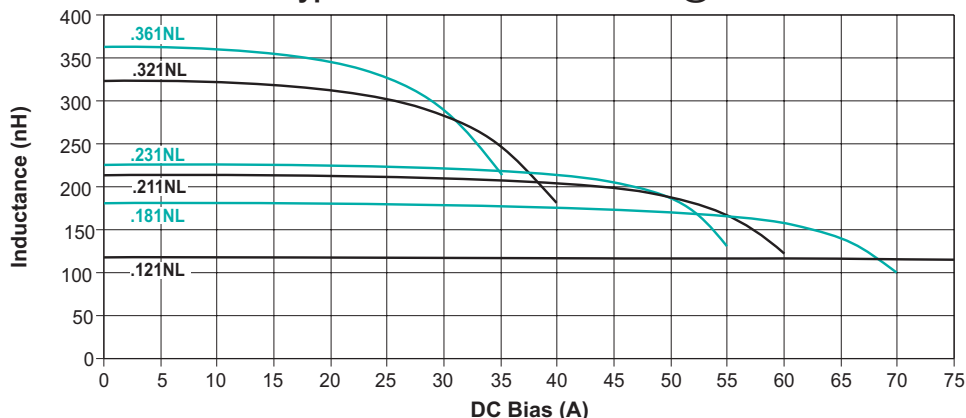


Weight 2.7 grams
Tape & Reel 600/reel

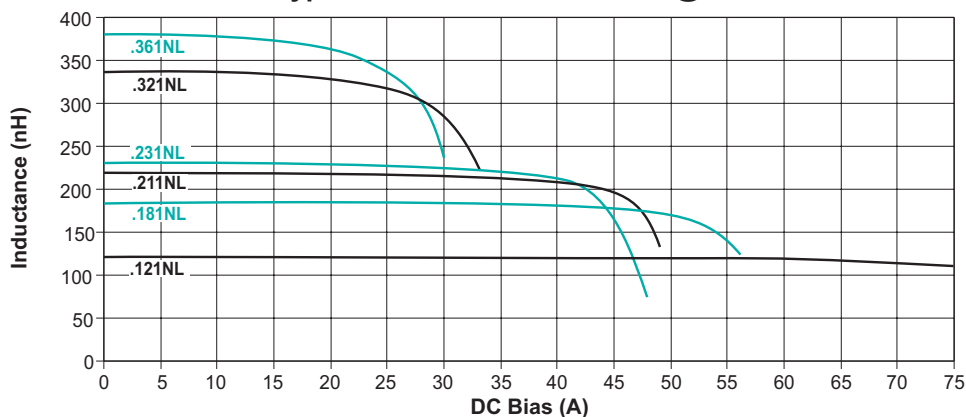
Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$



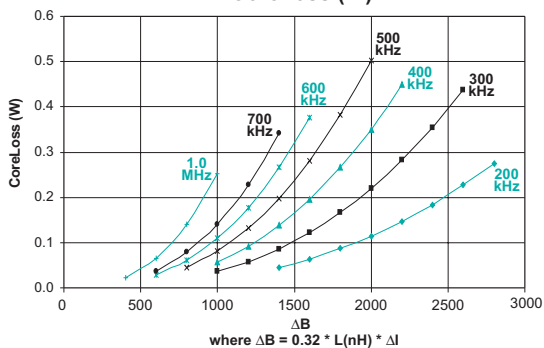
Typical Inductance vs DC Bias @ 25°C



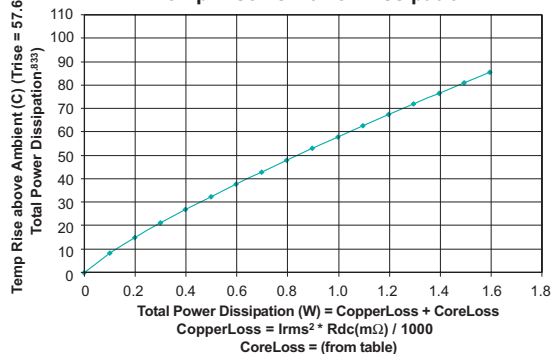
Typical Inductance vs DC Bias @ 100°C



CoreLoss (W)



Temp Rise vs Power Dissipation



For More Information

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, 2013. Pulse Electronics, Inc. All rights reserved.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View PA2202.231NL 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