



-  **Current Rating:** Over 75A<sub>pk</sub>
-  **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°C<sup>7</sup>

| Part Number  | Inductance @0ADC (nH ±15%) | Inductance @I <sub>rated</sub> (nH TYP) | I <sub>rated</sub> <sup>1</sup> (A <sub>DC</sub> ) | DCR <sup>2</sup> (mΩ) | Inductance @I <sub>sat</sub> (nH TYP) | Inductance @I <sub>sat</sub> (nH MIN) | Saturation Current <sup>3</sup> (A TYP) |       | Heating <sup>4</sup> 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    |                                      |

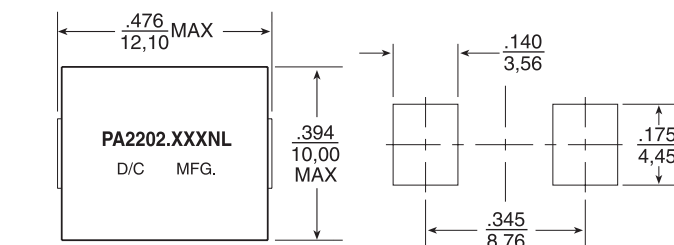
### NOTES:

- 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<sub>sat</sub> is the minimum inductance when measured at I<sub>sat</sub> (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.

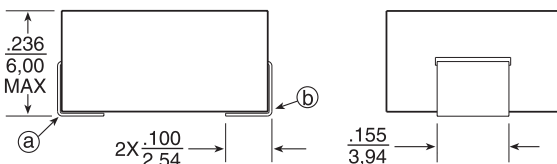
## Mechanical

## Schematic

### PA2202.XXXNL

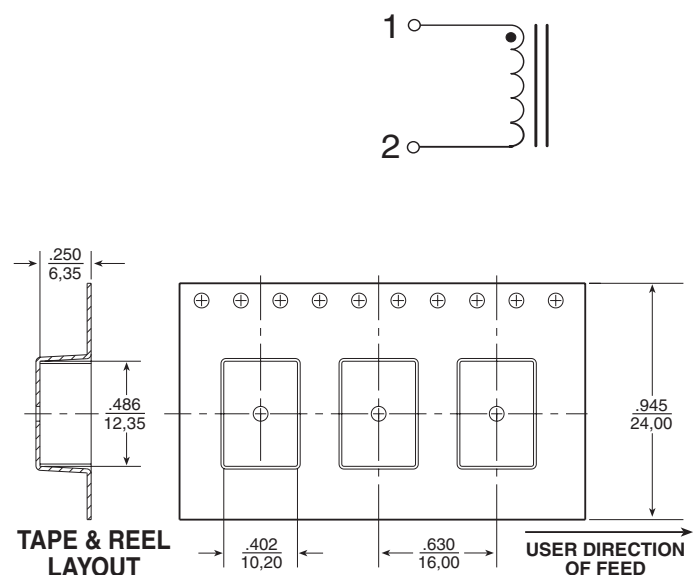


### SUGGESTED PAD LAYOUT

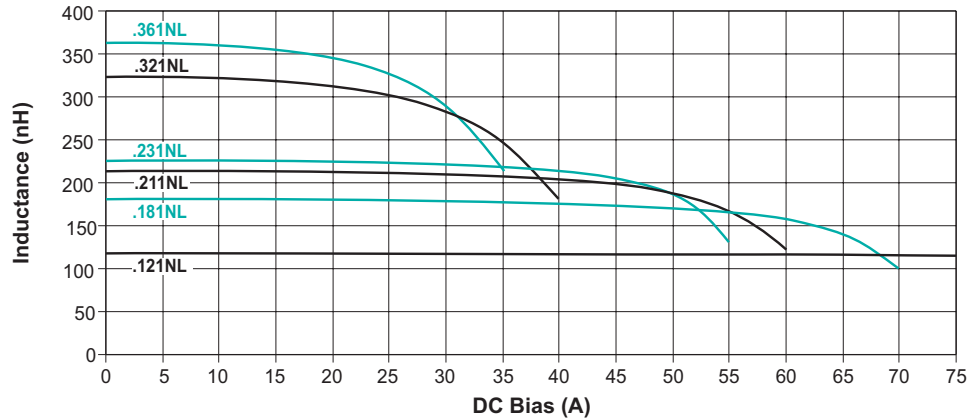


Weight ..... 2.7 grams  
Tape & Reel ..... 600/reel

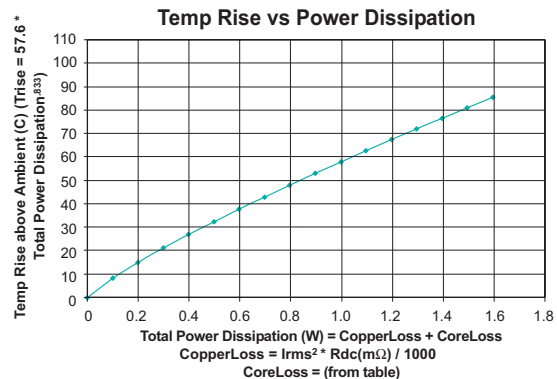
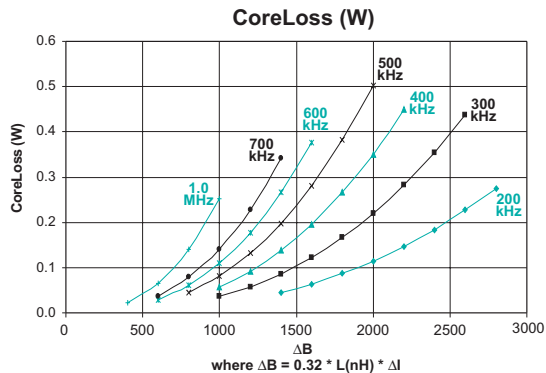
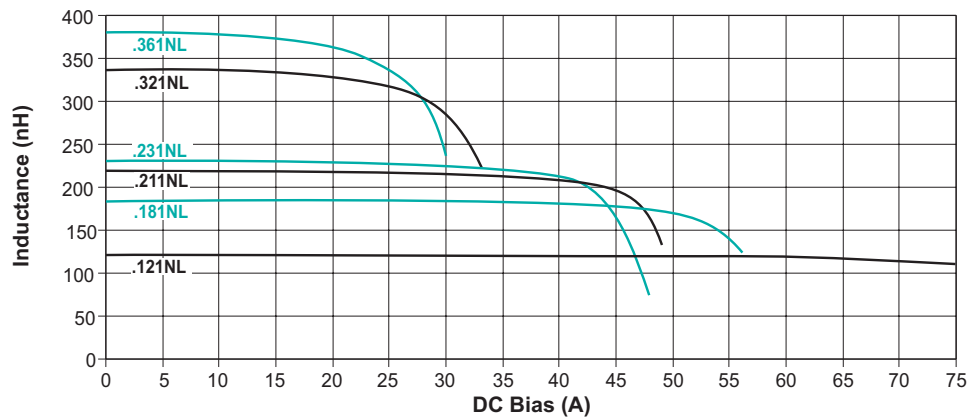
Dimensions: Inches  
mm  
Unless otherwise specified,  
all tolerances are ± .010  
0,25



Typical Inductance vs DC Bias @ 25°C



Typical Inductance vs DC Bias @ 100°C



## 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)

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