# **High Isolation Power Transformers**

PA200xNL Basic and Operational Insulation





- 1500Vrms isolation (380Vrms continuous)
- Basic insulation (1.4mm creepage/clearance) and operational available
- Operating frequency: 50kHz and up

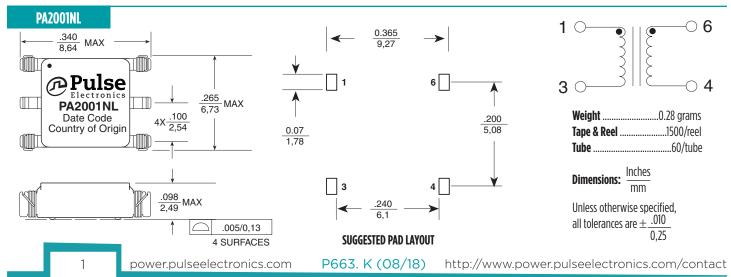
Electrical Specifications @ 25°C - Operating Temperature -40°C to 130°C <sup>5</sup>												
Part <sup>3,4</sup> Number	Turns Ratio	Pri-Sec Isolation (VRMS)	MAX¹ V*µsec	Primary Inductance (µH MIN)	Leakage² Inductance (µH MAX)	DCR Primary (Ω MAX)	DCR Secondary $(\Omega  {\rm MAX})$	Package Size (L x W x H) (mm MAX)				
OPERATIONAL INSULATION												
PA2001NL	1:1	1500	12	403	0.46	0.60	0.60	8.6 x 6.7 x 2.5				
PA2002NL	1:1:1	1500	60	1800	0.60	1.60	1.60	9.0 x 8.6 x 7.6				
PA2004NL	1:1:1	1500	20	437	0.85	0.85	0.85	8.6 x 6.7 x 3.6				
BASIC INSULATION (1.4MM CREEPAGE AND CLEARANCE BETWEEN PRIMARY AND SECONDARY)												
PA2005NL	1:1:1	1500	26	840	0.75	1.05	1.05	11.8 x 8.8 x 4.0				
PA2006NL	1:1	1500	26	864	0.75	0.82	0.82	11.8 x 8.8 x 4.0				
PA2007NL	1:1	1500	53	1490	0.80	1.15	1.15	9.0 x 8.6 x 7.6				
PA2008NL	2:1:1	1500	52	1425	0.80	1.15	0.575	9.0 x 8.6 x 7.6				
PA2009NL	2.5:1:1	1500	47	1486	0.80	1.15	0.425	9.0 x 8.6 x 7.6				

#### Notes:

- The maximum volt-µsec limits the peak flux density to 2800 Gauss when used in a
  unipolar drive application. For bi-polar drive applications, a maximum volt-µsec of
  two times this rating is acceptable (i.e. 2\* (volt\*µsec rating) Volt\*µsec = (voltage
  applied to the primary) \* dutycycle / Frequency = V \* alpha / Freq\_Hz = V \* µsec
- Leakage inductance is measured at primary terminals with all secondaries shorted.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA2002NL becomes PA2002NLT). Pulse complies to industry standard tape and reel specification EIA481.

  Mechanical
- 4. The "NL" suffix indicates an RoHS-compliant part number.
- 5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- 6. Continuous isolation voltage confirmed by 125°C/1000hrs accelerated aging with the bias voltage applied between primary and secondary windings.

#### Schematic



# **High Isolation Power Transformers**

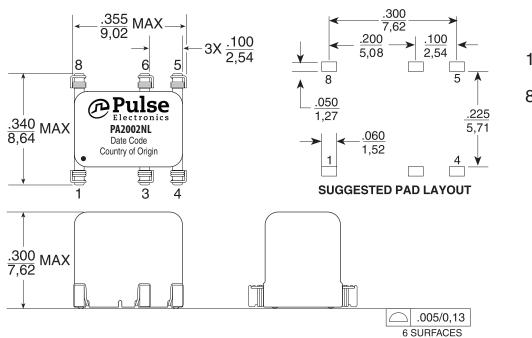
PA200xNL Basic and Operational Insulation

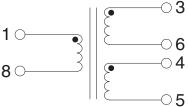


#### Mechanicals (CONTINUED)

# **Schematics**

#### PA2002NL





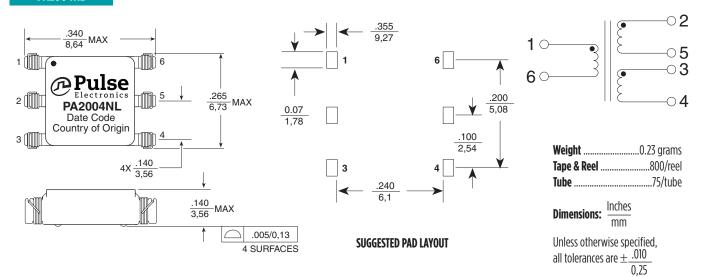
**Dimensions:**  $\frac{\text{Inches}}{\text{mm}}$ 

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$ 

## **Mechanicals**

### **Schematics**

#### PA2004NL



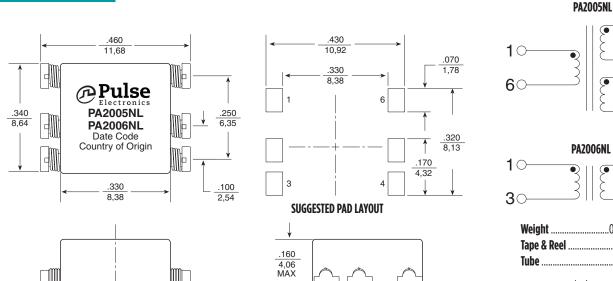
# High Isolation Power Transformers PA200xNL Basic and Operational Insulation

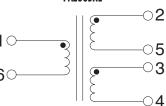
**PA2005NL, PA2006NL** 



## Mechanical (CONTINUED)

# **Schematic**







Weight	0.48 grams
Tape & Reel	900/reel
Tube	60/tube

Inches **Dimensions:** 

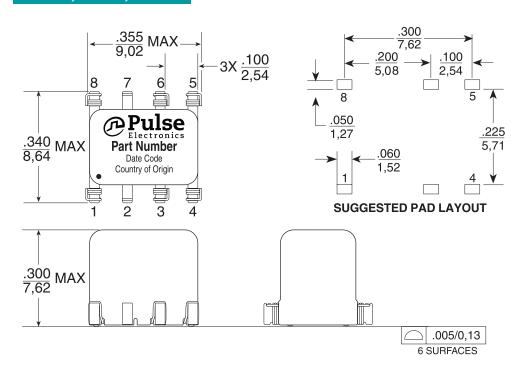
Unless otherwise specified, all tolerances are  $\pm \underline{.010}$ 

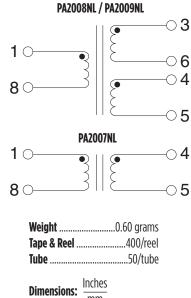
# **Mechanicals**

.005/0,13 6 SURFACES

### **Schematics**

#### PA2007NL, PA2008NL, PA2009NL





\* for PA2007NL the pads for pins 3 and 6 in the suggested pad layout should not be used in the layout

Unless otherwise specified,

all tolerances are  $\pm$  .010

# High Isolation Power Transformers PA200xNL Basic and Operational Insulation



For More Information										
Pulse Worldwide Headquarters 15255 Innovation Drive Ste 100 San Diego, CA 92128 U.S.A.	Pulse Europe Pulse Electronics GmbH Am Rottland 12 58540 Meinerzhagen Germany	Pulse China Headquarters Pulse Electronics (ShenZhen) CO., LTD D708, Shenzhen Academy of Aerospace Technology, The 10th Keji South Road, Nanshan District, Shenzhen, P.R. China 518057	Pulse North China Room 2704/2705 Super Ocean Finance Ctr. 2067 Yan An Road West Shanghai 200336 China	Pulse South Asia 3 Fraser Street 0428 DUO Tower Singapore 189352	Pulse North Asia 1F., No.111 Xiyuan Rd Zhongli City Taoyuan City 32057 Taiwan (R.O.C)					
Tel: 858 674 8100 Fax: 858 674 8262	Tel: 49 2354 777 100 Fax: 49 2354 777 168	Tel: 86 755 33966678 Fax: 86 755 33966700	Tel: 86 21 62787060 Fax: 86 2162786973	Tel: 65 6287 8998 Fax: 65 6280 0080	Tel: 886 3 4356768 Fax: 886 3 4356820					

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