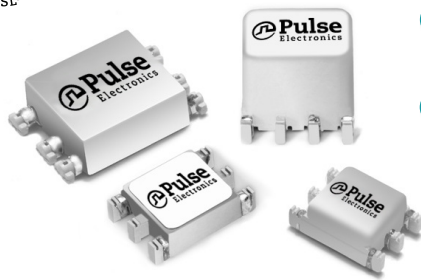


High Isolation Power Transformers

PA200xNL Basic and Operational Insulation



- ④ 1500Vrms isolation (380Vrms continuous)
- ④ Basic insulation (1.4mm creepage/clearance) and operational available
- ④ Operating frequency: 50kHz and up

Electrical Specifications @ 25°C - Operating Temperature -40°C to 130°C⁵

Part ^{3,4} Number	Turns Ratio	Pri-Sec Isolation (VRMS)	MAX ¹ V* μ sec	Primary Inductance (μ H MIN)	Leakage ² Inductance (μ H MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω 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	1175	1.20	1.0	0.475	9.0 x 8.6 x 7.6

Notes:

1. The maximum volt- μ sec limits the peak flux density to 2800 Gauss when used in a unipolar drive application. For bi-polar drive applications, a maximum volt- μ sec of two times this rating is acceptable (i.e. 2* (volt* μ sec rating) Volt* μ sec = (voltage applied to the primary) * dutycycle / Frequency = V * alpha / Freq_ Hz = V * μ sec
2. Leakage inductance is measured at primary terminals with all secondaries shorted.
3. 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.
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.

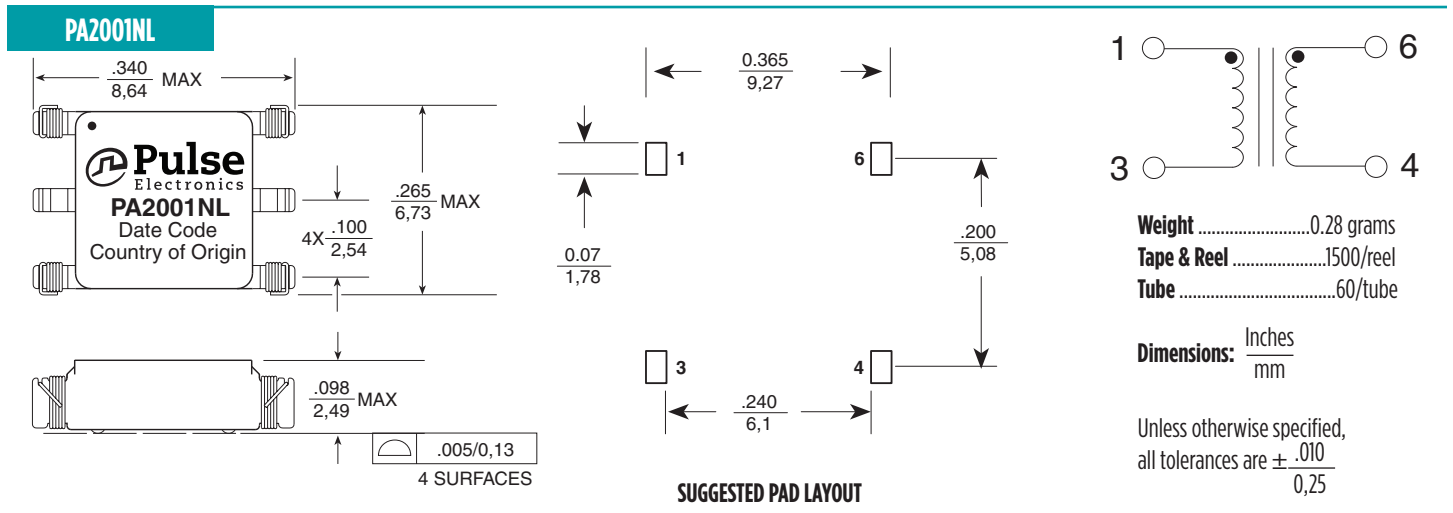
High Isolation Power Transformers

PA200xNL Basic and Operational Insulation



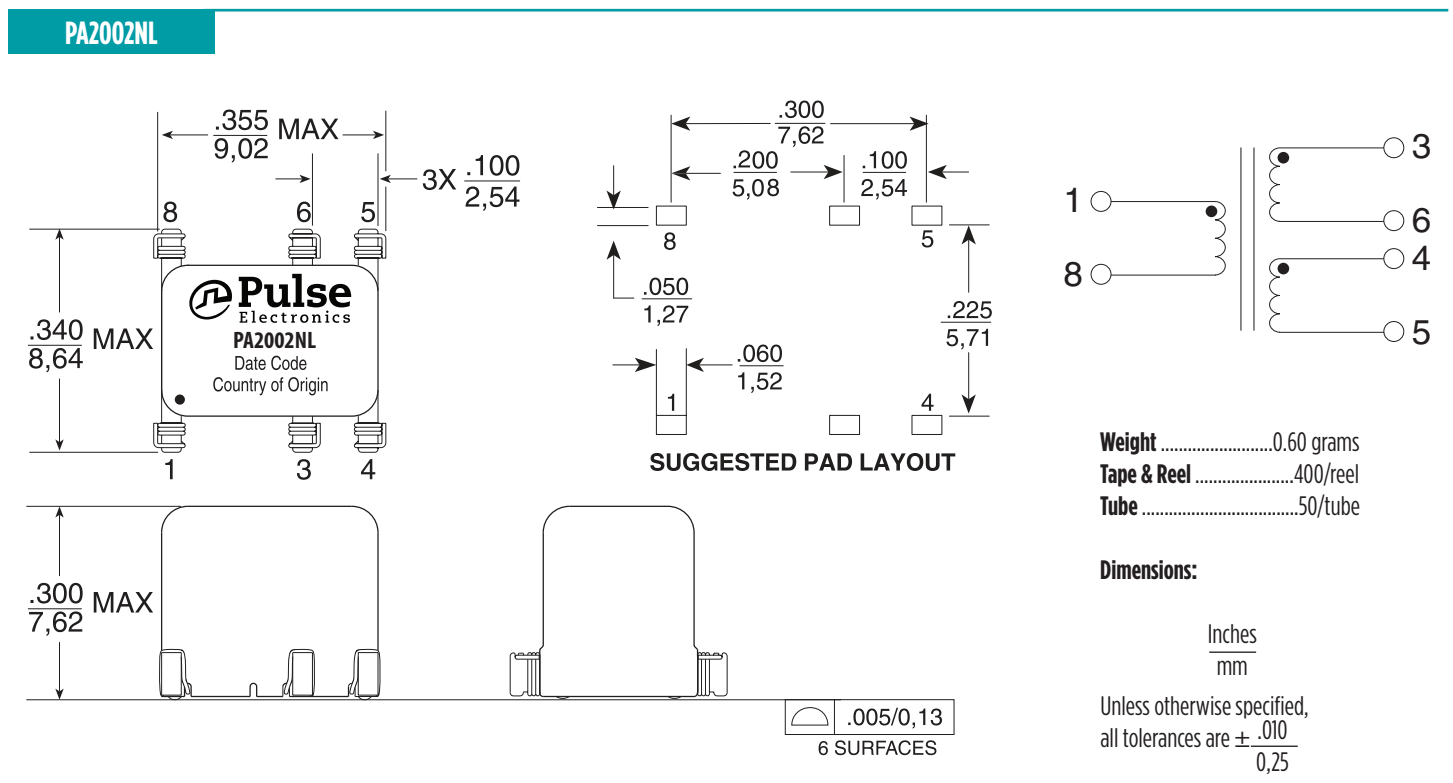
Mechanical

Schematic



Mechanicals

Schematics



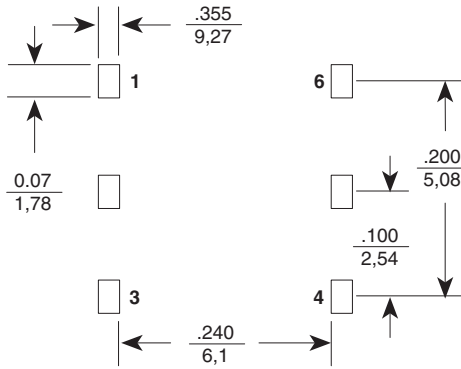
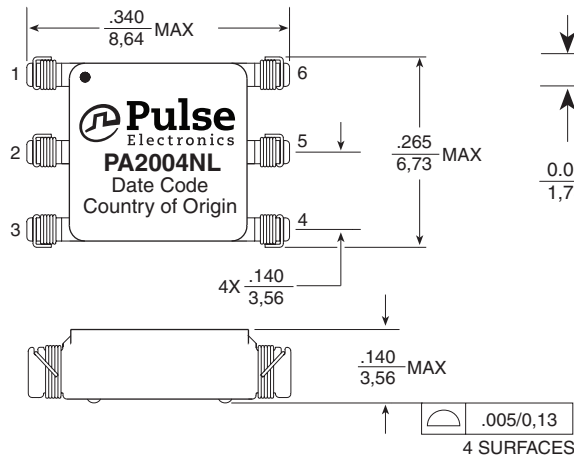
High Isolation Power Transformers

PA200xNL Basic and Operational Insulation

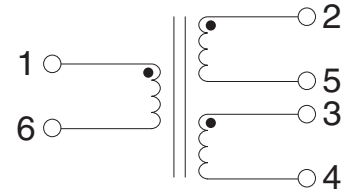
Mechanicals

Schematics

PA2004NL



SUGGESTED PAD LAYOUT



Weight0.23 grams
Tape & Reel800/reel
Tube75/tube

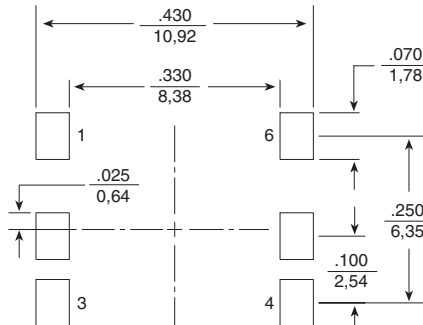
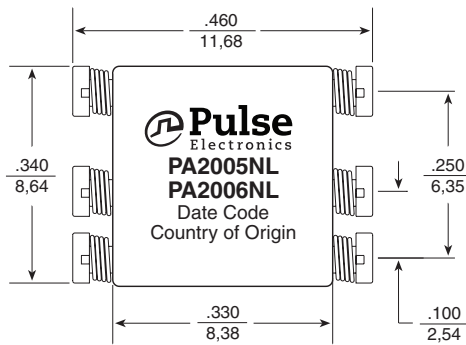
Dimensions: $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$

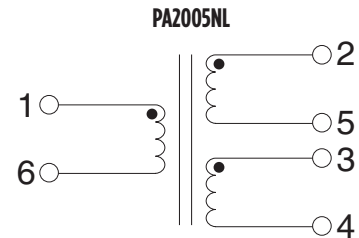
Mechanical

Schematic

PA2005NL, PA2006NL



SUGGESTED PAD LAYOUT



Weight0.48 grams
Tape & Reel900/reel
Tube60/tube

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

Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$

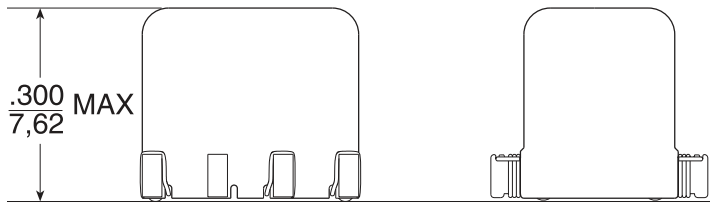
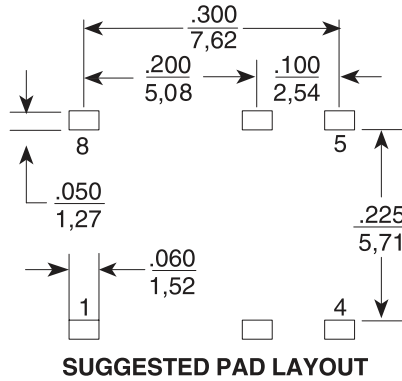
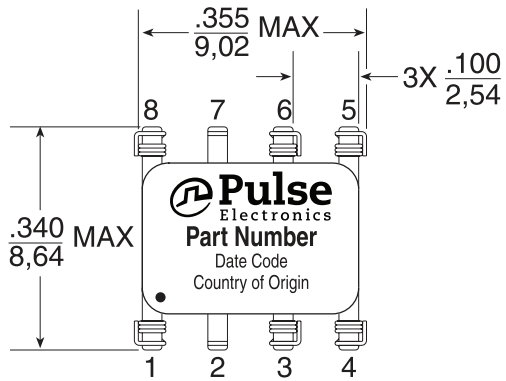
High Isolation Power Transformers

PA200xNL Basic and Operational Insulation

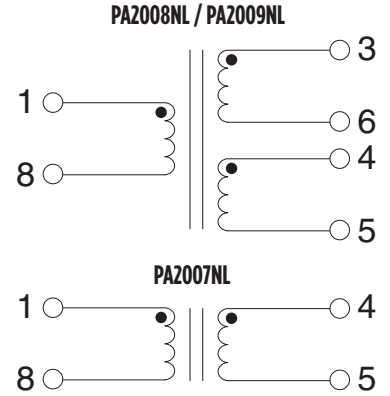
Mechanicals

Schematics

PA2007NL, PA2008NL, PA2009NL



$\frac{1}{4}$.005/0,13
6 SURFACES



Weight0.60 grams
Tape & Reel400/reel
Tube50/tube

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

Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$

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

For More Information:

Americas - prodinfo_power@pulseelectronics.com | Europe - power-apps-europe@pulseelectronics.com | Asia - power-apps-asia@pulseelectronics.com

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