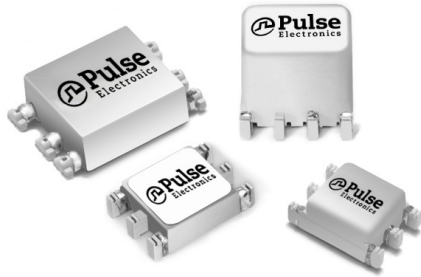


SMT Gate Drive Transformers

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°C⁵

Part ^{1,2} Number	Turns Ratio	Pri-Sec Isolation (VRMS)	MAX ¹ V*µsec	Primary Inductance (µH MIN)	Leakage Inductance (µH 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	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.
- The "NL" suffix indicates an RoHS-compliant part number.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- Continuous isolation voltage confirmed by 125°C/1000hrs accelerated aging with the bias voltage applied between primary and secondary windings.

Mechanical

Schematic

PA2001NL

Weight0.28 grams
Tape & Reel1500/reel
Tube60/tube

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

SUGGESTED PAD LAYOUT

USA 858 674 8100 Germany 49 2354 777 100 Singapore 65 6287 8998 Shanghai 86 21 62787060 China 86 755 33966678 Taiwan 886 3 4356768

SMT Gate Drive Transformers

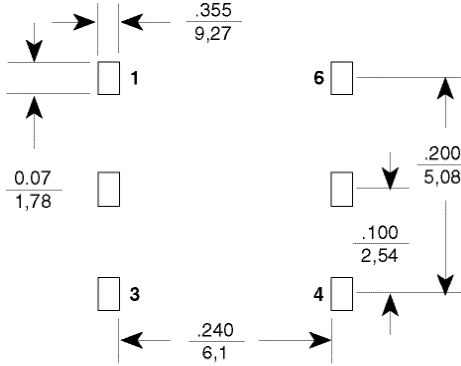
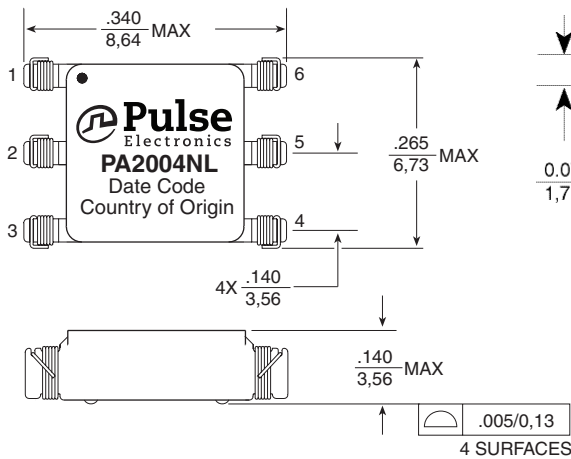
PA200xNL Basic and Operational Insulation



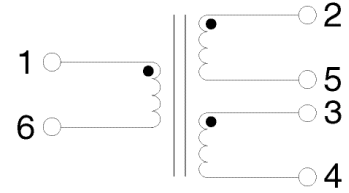
Mechanicals (CONTINUED)

Schematics

PA2004NL



SUGGESTED PAD LAYOUT

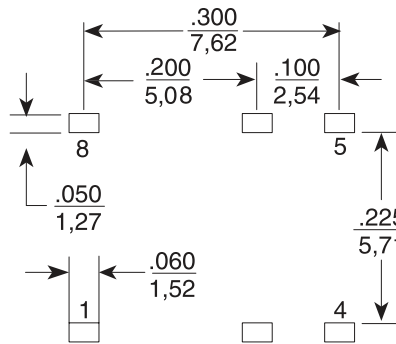
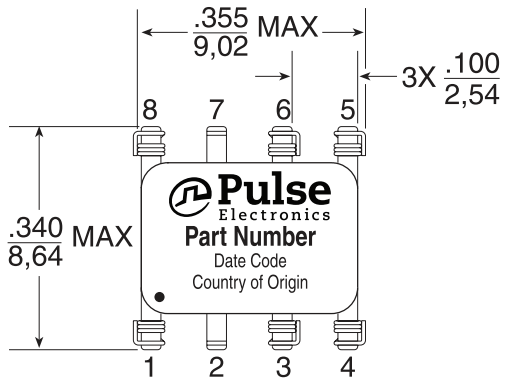


Weight0.23 grams
 Tape & Reel800/reel
 Tube75/tube

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

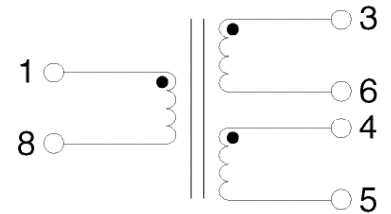
Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0,25}$

PA2002NL, PA2007NL, PA2008NL, PA2009NL

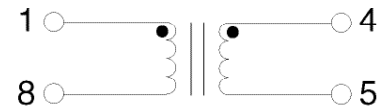


SUGGESTED PAD LAYOUT

PA2002NL / PA2008NL / PA2009NL



PA2007NL*



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

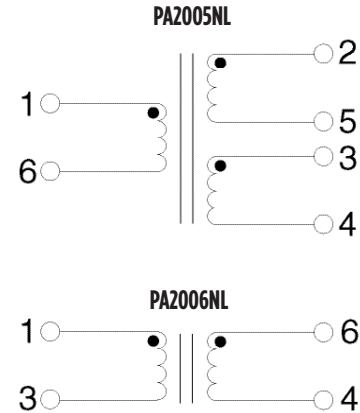
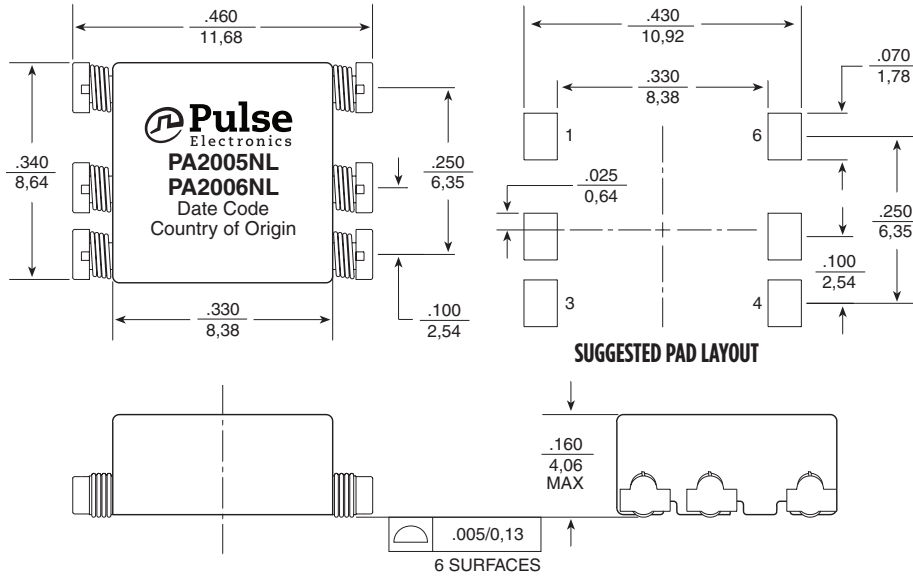
SMT Gate Drive Transformers

PA200xNL Basic and Operational Insulation

Mechanical (CONTINUED)

Schematic

PA2005NL, PA2006NL



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

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

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

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