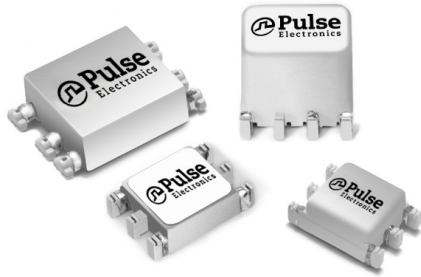


SMT Gate Drive Transformers

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

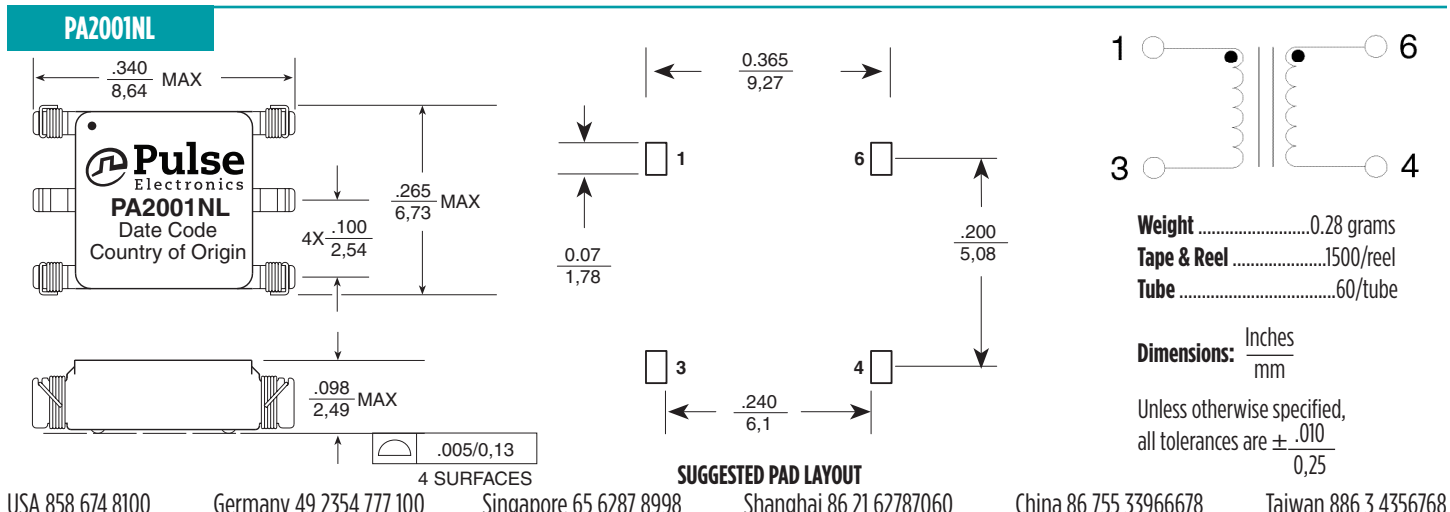
Part ^{1,2} Number	Turns Ratio	Pri-Sec Isolation (VRMS)	MAX ¹ V*μsec	Primary Inductance (μH MIN)	Leakage Inductance (μH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	Package Size (L x W x H) (mm MAX)
OPERATIONAL INSULATION								
PA2001NL	1:1	1500	12	403	0.46	0.60	0.60	8.6 x 6.7 x 2.5
PA2002NL	1:1:1	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



SMT Gate Drive Transformers

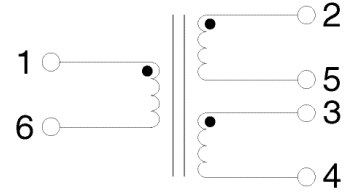
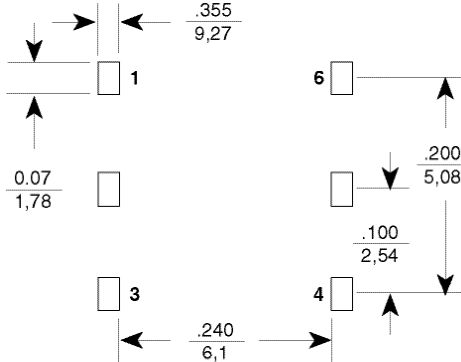
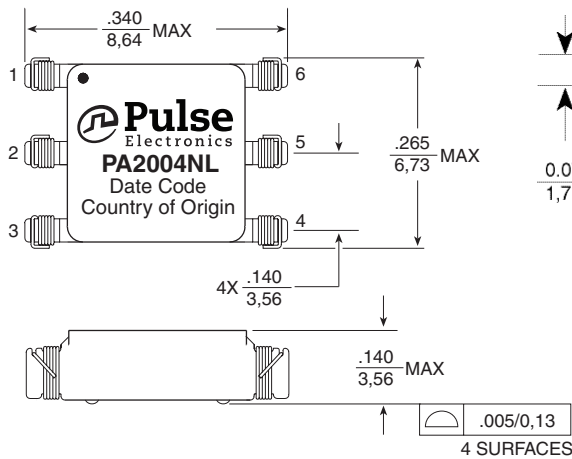
PA200xNL Basic and Operational Insulation



Mechanicals (CONTINUED)

Schematics

PA2004NL

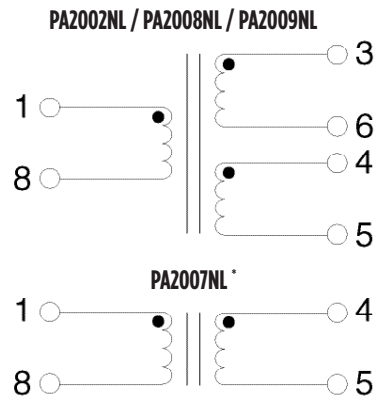
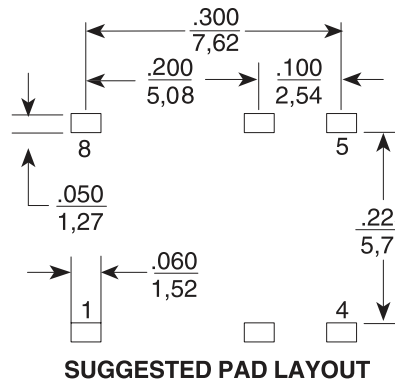
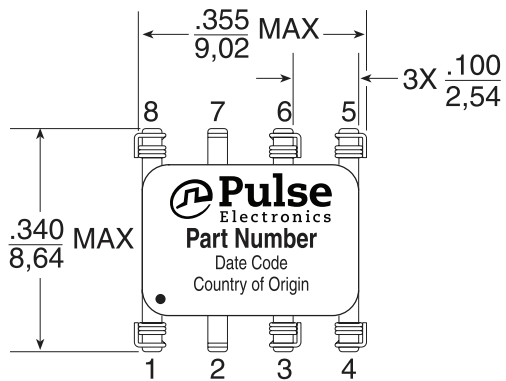


Weight0.23 grams
Tape & Reel800/reel
Tube75/tube

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

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

PA2002NL, PA2007NL, PA2008NL, PA2009NL



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

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

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

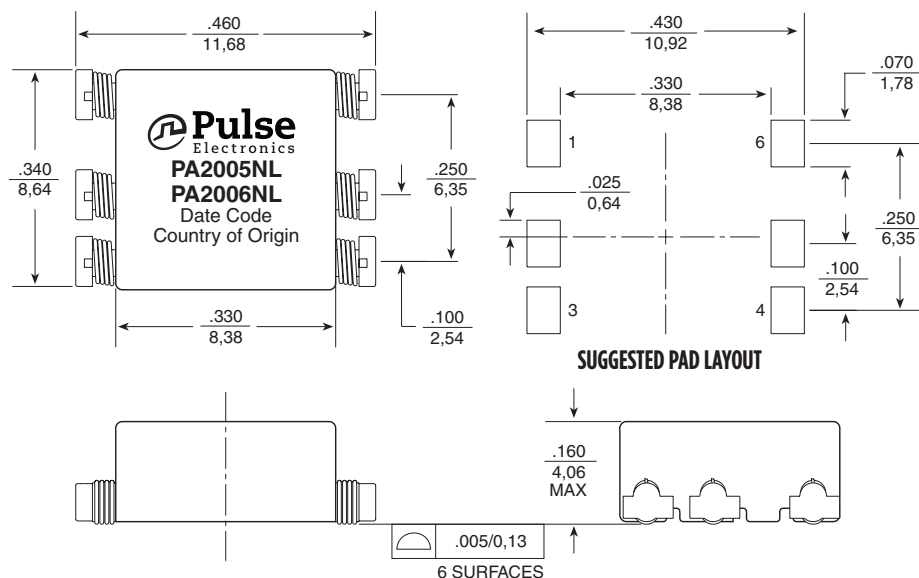
* for PA2007NL the pads for pins 3 and 6 in the suggested pad layout should not be used in the layout

SMT Gate Drive Transformers

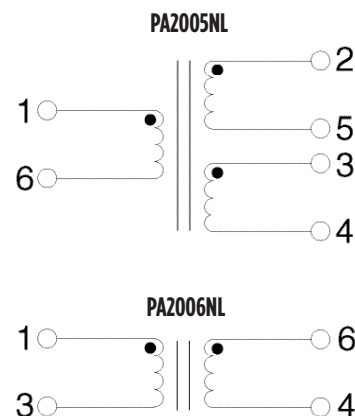
PA200xNL Basic and Operational Insulation

Mechanical (CONTINUED)

PA2005NL, PA2006NL



Schematic



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

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

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

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

Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany

Tel: 49 2354 777 100
Fax: 49 2354 777 168

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejian 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, 2016. Pulse Electronics, Inc. All rights reserved.