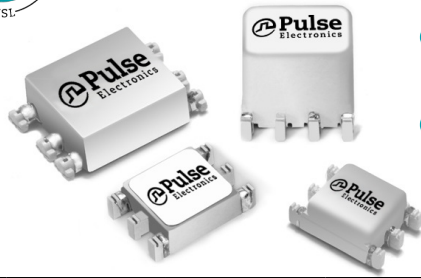


High Isolation Power Transformers

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°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 | 1486 | 0.80 | 1.15 | 0.425 | 9.0 x 8.6 x 7.6 |

- Notes:**
- 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. $2 * (\text{volt} * \mu\text{sec rating})$). $\text{Volt} * \mu\text{sec} = (\text{voltage applied to the primary}) * \text{duty cycle} / \text{Frequency} = V * \alpha / \text{Freq_Hz} = V * \mu\text{sec}$
 - 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

SUGGESTED PAD LAYOUT

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

Dimensions: Inches / mm

Unless otherwise specified, all tolerances are $\pm .010 / 0,25$

High Isolation Power Transformers

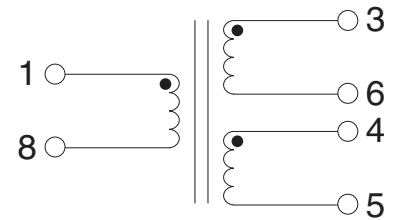
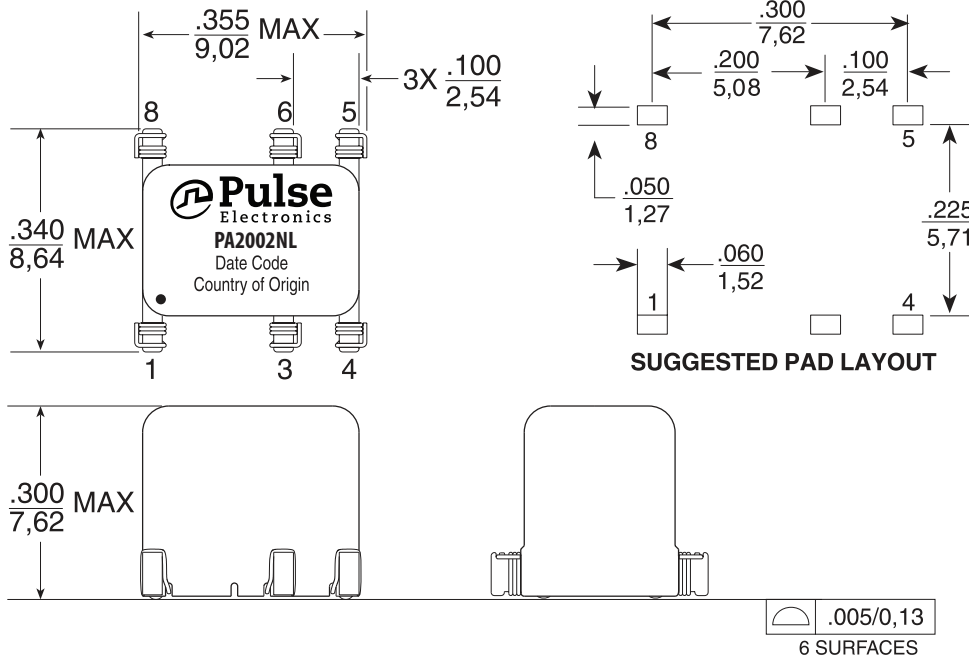
PA200xNL Basic and Operational Insulation



Mechanicals (CONTINUED)

Schematics

PA2002NL



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

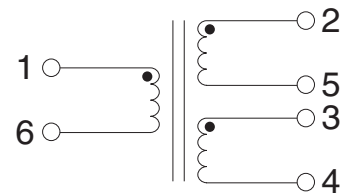
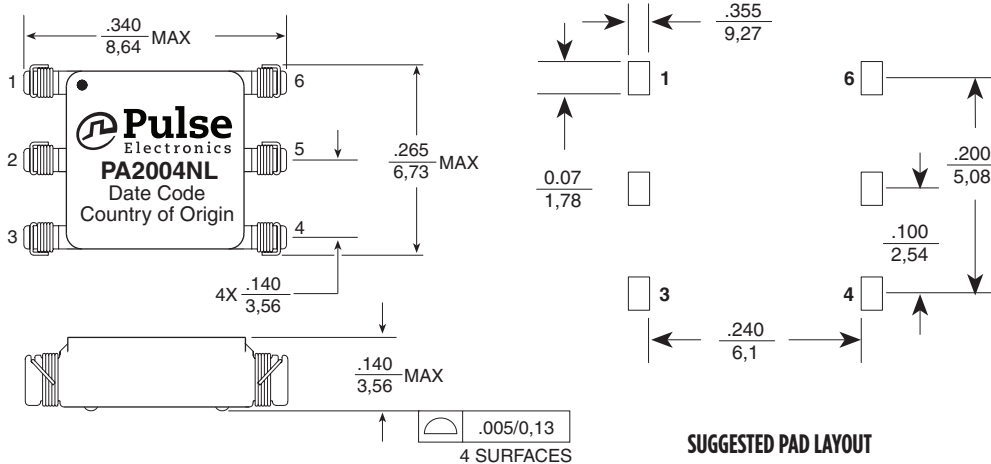
Dimensions: $\frac{\text{Inches}}{\text{mm}}$

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

Mechanicals

Schematics

PA2004NL



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

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

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

High Isolation Power Transformers

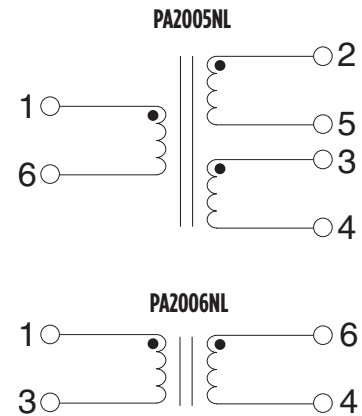
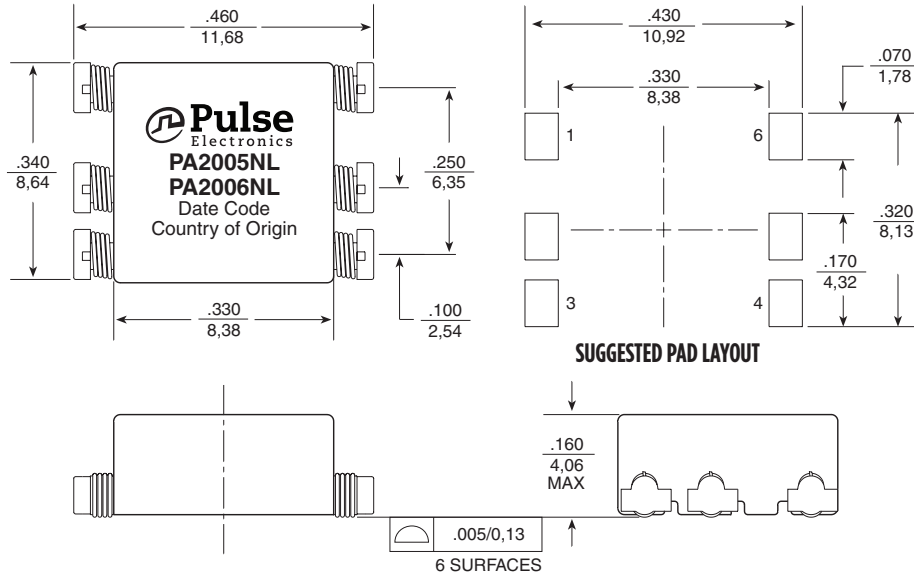
PA200xNL Basic and Operational Insulation



Mechanical (CONTINUED)

Schematic

PA2005NL, PA2006NL



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

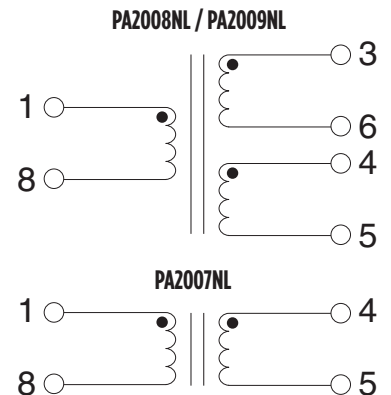
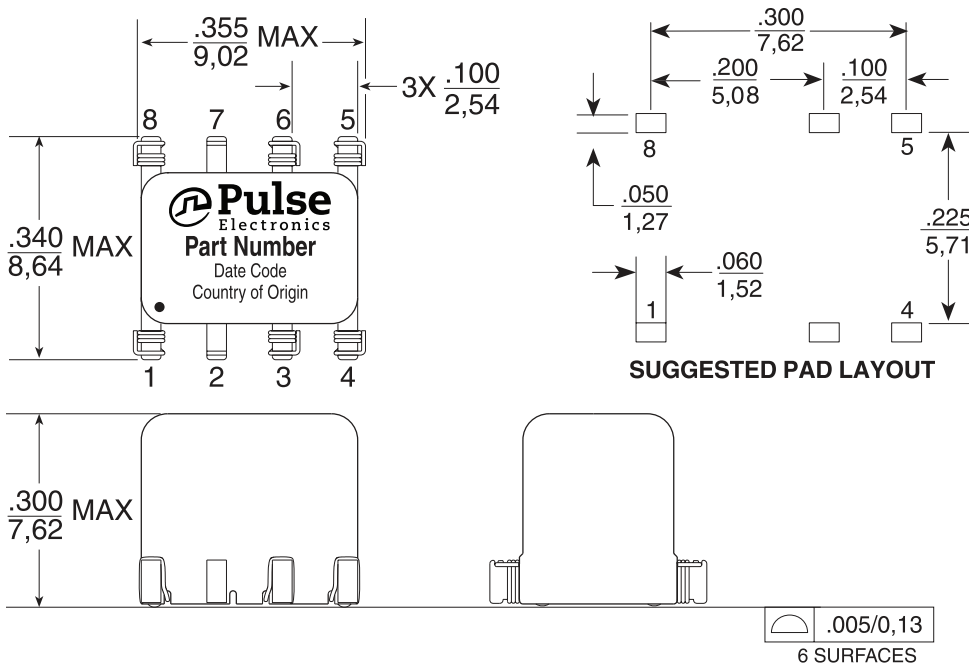
Dimensions: $\frac{\text{Inches}}{\text{mm}}$

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

Mechanicals

Schematics

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

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.

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

Pulse Electronics (ShenZhen) CO., LTD
D708, Shenzhen Academy of
Aerospace Technology,
The 10th Keji South Road,
Nanshan District, Shenzhen,
P.R. 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

3 Fraser Street
0428 DUO Tower
Singapore 189352

Tel: 65 6287 8998
Fax: 65 6280 0080

Pulse North Asia

1F., No.111 Xiyuan Rd
Zhongli City
Taoyuan City 32057
Taiwan (R.O.C)

Tel: 886 3 4356768
Fax: 886 3 4356820

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, 2018. Pulse Electronics, Inc. All rights reserved.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Power Transformers](#) category:

Click to view products by [Pulse](#) manufacturer:

Other Similar products are found below :

[ET-030A](#) [F-102X](#) [F-120X](#) [F-14X-1](#) [F-181U](#) [F-18A](#) [F-199U](#) [F-19X](#) [F-202U](#) [F-204U](#) [F-206U](#) [F-227X](#) [F-238U](#) [F-239U-1](#) [F-23U](#) [F24-250-B](#)
[F-242U](#) [F-245U](#) [F-264U](#) [F-265U](#) [F-267U](#) [F-281U](#) [F-283U](#) [F-290X](#) [F-295Z](#) [F-296Z](#) [F-298Z](#) [F-3143P](#) [F-3298Z](#) [F-33U](#) [F-346X](#) [F-35U](#) [F-](#)
[364U](#) [F-392A](#) [F-395X](#) [F-397U](#) [F-412X](#) [F-47U](#) [F-55X-1](#) [F-60U](#) [F-68U](#) [F-71U](#) [F-72Z](#) [F-74U](#) [F-83A](#) [F-84AC](#) [F-85U](#) [F-86U](#) [F-9U](#) [PCT-02](#)