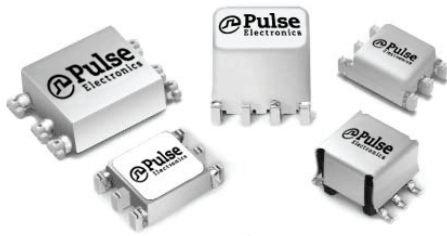


SMT Gate Drive Transformers

>1500V_{DC} Basic and Functional Insulation



- >1500V_{DC} isolation between Gate and Drive
- Basic insulation (1.4mm creepage/clearance) and functional 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 Insulation	MAX ¹ V*μsec	Primary Inductance (μH MIN)	Leakage ² Inductance (μH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	Package Size (L x W x H) (mm MAX)
Functional Insulation								
PE-68386NL	1:1	1500 Vdc	9.7	785	0.46	0.60	0.60	8.6 x 6.7 x 2.5
P0926NL	1:1:1	1500 Vdc	23.8	300	0.50	2.00	2.00	8.0 x 6.6 x 5.3
P0544NL	1:1:1	1500 Vdc	45.1	3300	0.80	1.25	1.25	9.0 x 8.6 x 7.6
PA0264NL	1:1:1	1000 Vrms	12.7	1140	0.65	0.75	0.75	8.6 x 6.7 x 3.6
PA1323NL	1:1	1500 Vrms	21.7	600	2.0	1.25	1.25	9.5 x 7.1 x 5.3
Basic Insulation (1.4mm creepage and clearance between Primary and Secondary)								
PA0173NL	1:1:1	1500 Vrms	17.2	980	0.75	0.62	0.88	11.8 x 8.8 x 4.0
PA0185NL	1:1	1500 Vrms	17.2	980	0.75	0.88	0.62	11.8 x 8.8 x 4.0
PA0184NL	1:1	1500 Vrms	27.2	1200	0.50	0.91	0.91	9.0 x 8.6 x 7.6
PA0297NL	2:1:1	1500 Vrms	27.2	1200	0.60	0.91	0.46	9.0 x 8.6 x 7.6
PA2777NL	1:1	1500 Vrms	9.3	335.2	0.36	0.70	0.70	7.1 x 6.1 x 5.5
PA0510NL	2.5:1:1	1500 Vrms	27.2	1200	0.68	0.91	0.380	9.0 x 8.6 x 7.6
PA3493NL	1.25:1	1650 Vrms	23	656	1.3	1.03	0.85	10.9 x 9.7 x 2.7

Notes:

- The Maximum volt-μsec rating limits the peak flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications, a maximum volt-sec of two times this rating is acceptable (ie: 2* (volt*μsec rating) = (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. P0544NL becomes P0544NLT). Pulse complies to industry standard tape and reel specification EIA481.
- The "NL" suffix indicates an RoHS-compliant part number. Non-NL suffixed parts are not necessarily RoHS compliant, but are electrically and mechanically equivalent to NL versions. If a part number does not have the "NL" suffix, but an RoHS compliant version is required, please contact Pulse for availability.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

>1500V_{DC} Basic and Functional Insulation

Schematics

1

.340 MAX

Pulse
Electronics

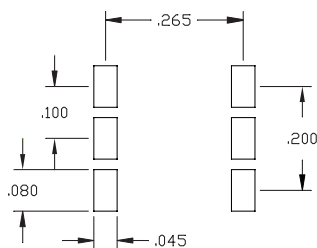
PE-68386NL

DATE CODE

COUNTRY OF ORIGIN

265 MAX

4X .100



	.005
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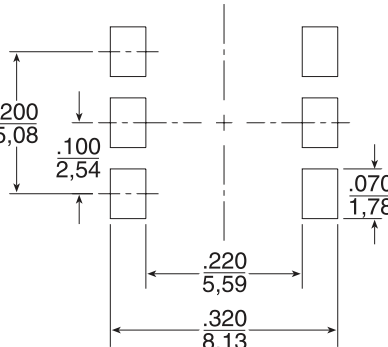
4 SURFACES

Mechanical drawing of the P0264NL component. The drawing shows a rectangular component with six pins. The dimensions are as follows:

- Pin 1 to Pin 6 distance: $.340 \text{ MAX}$ / $8,64$
- Pin 5 to Pin 6 distance: $.265 \text{ MAX}$ / $6,73$
- Pin 4 to Pin 5 distance: $4 \times .100$ / $2,54$

The component is labeled with the following text:

- Pulse Electronics**
- P0264NL**
- Date Code
- Country of Origin

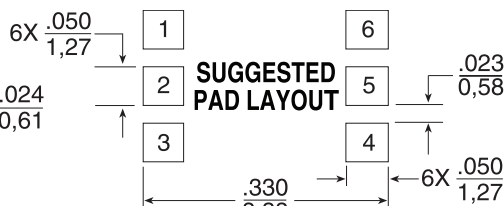


Tube 60/tube

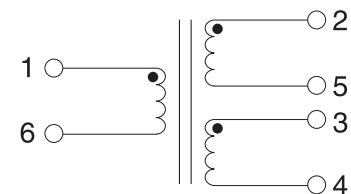
mm
Unless otherwise specified, all tolerances are $\pm \frac{.010}{0.25}$

Mechanical drawing of the P0926NL component showing dimensions and markings:

- Top dimension: .146 (3.71)
- Bottom dimension: .073 (1.85)
- Right side dimension: .315 MAX (8.00)
- Markings on the component:
 - Pulse Electronics
 - P0926NL
 - Date Code
 - Country of Origin



SUGGESTED PAD LAYOUT



Tube80/tube

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

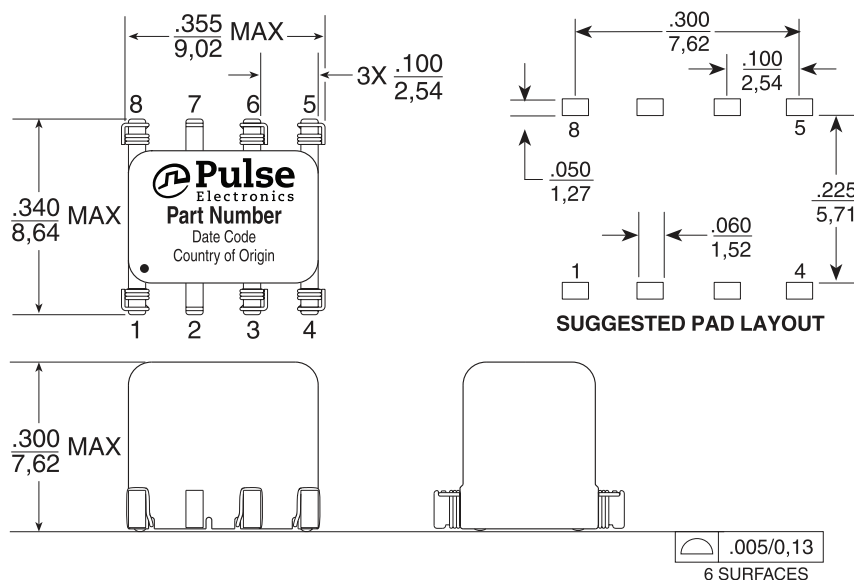
SMT Gate Drive Transformers

>1500V_{DC} Basic and Functional Insulation

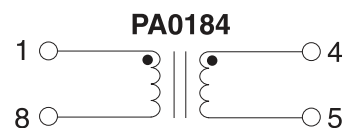
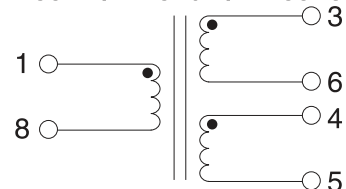
Mechanicals (continued)

Schematics

P0544NL, PA0297, PA0510, PA0184NL



P0544 / PA0297 / PA0510

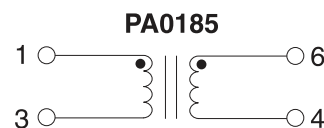
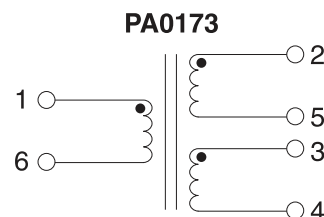
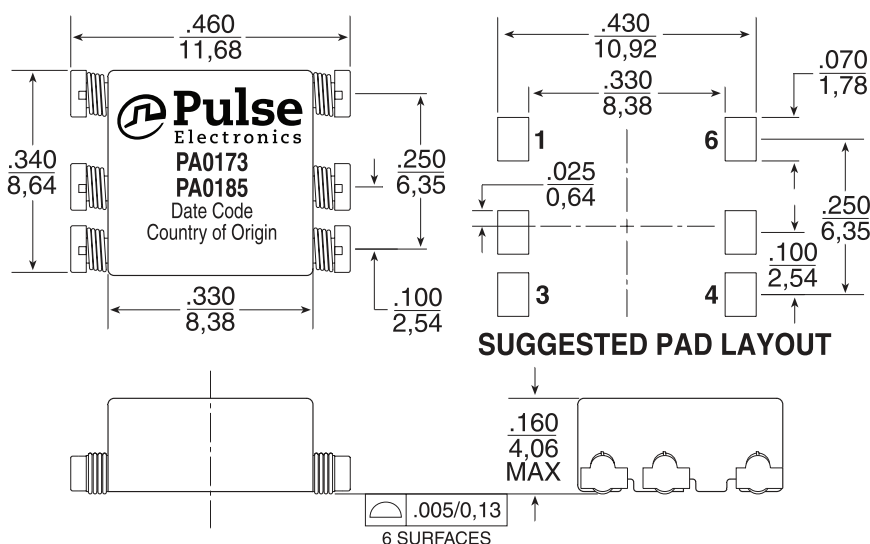


Weight0.60 grams
Tape & Reel40/reel
Tube50/tube

Dimension: Inches
mm

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

PA0173, PA0185



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

Dimension: Inches
mm

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

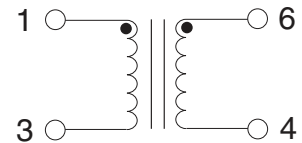
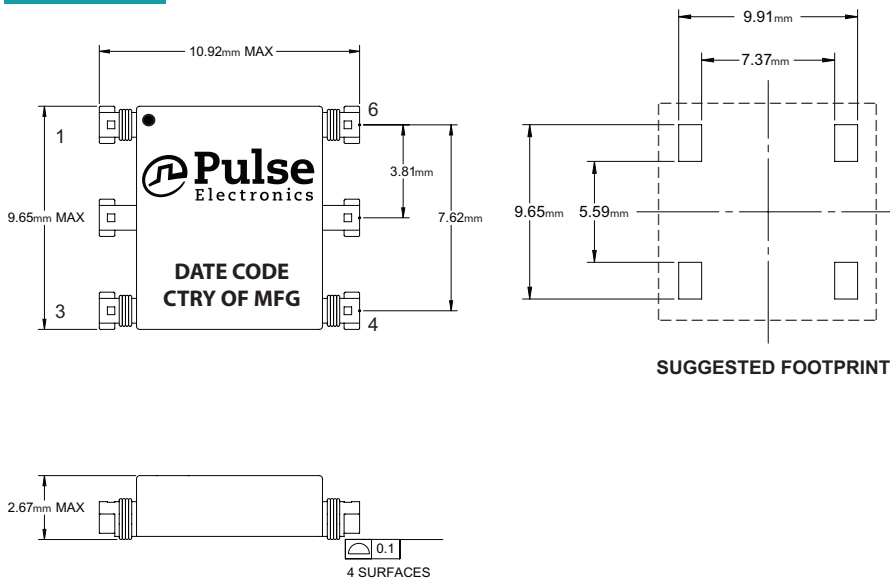
SMT Gate Drive Transformers

>1500V_{DC} Basic and Functional Insulation

Mechanicals (continued)

Schematics

PA3493NL

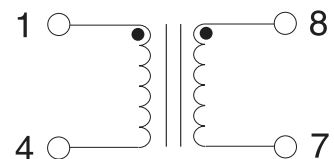
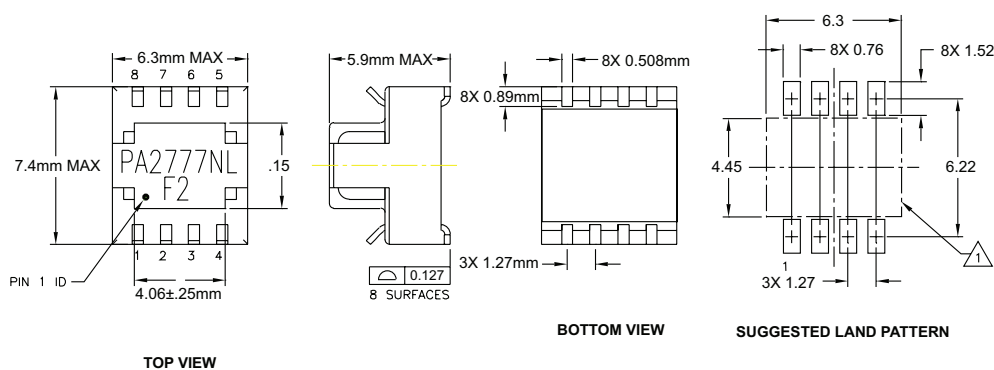


Weight0.31 grams
Tape & Reel1250/reel
Tube50/tube

Dimension: mm

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

PA2777NL



Weight0.32 grams
Tape & Reel850/reel
Tube120/tube

Dimension: mm

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

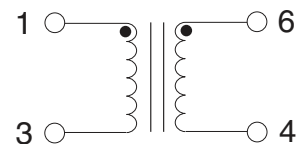
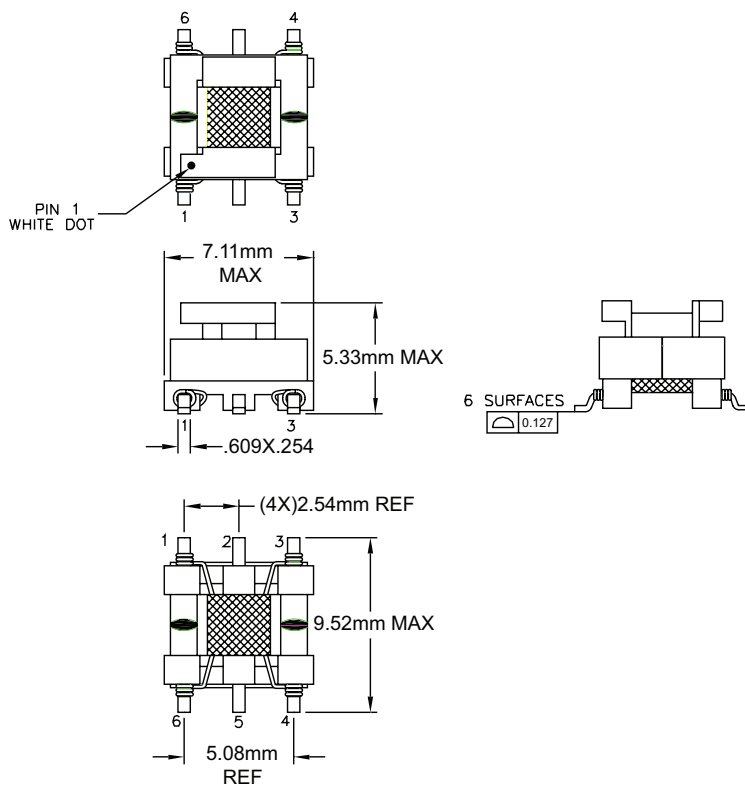
SMT Gate Drive Transformers

>1500V_{DC} Basic and Functional Insulation

Mechanicals *(continued)*

Schematics

PA1323NL



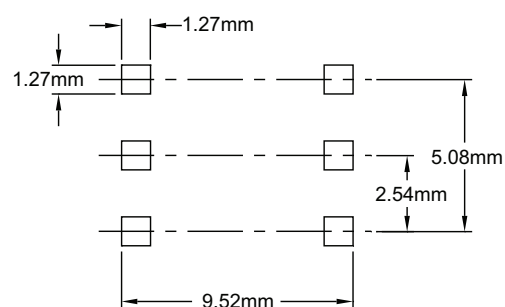
Weight0.4 grams

Tape & Reel700/reel

Tube225/tube

Dimension: mm

Unless otherwise specified, all tolerances are ± 0.25



SUGGESTED PCB LAYOUT