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°C [5]								
Part [3,4] Number	**Turns Ratio**	**Pri-Sec Insulation** (V_{DC})	**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 Vrms	9.7	785	0.46	0.60	0.60	8.6 x 6.7 x 2.5
P0926NL	1:1:1	1500 Vrms	23.8	300	0.50	2.00	2.00	8.0 x 6.6 x 5.3
P0544NL	1:1:1	1500 Vrms	45.1	3300	0.70	1.60	1.60	9.0 x 8.6 x 7.6
PA0264NL	1:1:1	1500 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 7.0 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
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 Vdc	23	656	1.3	1.03	0.85	10.9 x 9.7 x 2.7

Notes:

1. 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
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. P0544NL becomes P0544NLT). Pulse complies to industry standard tape and reel specification EIA481.
4. 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.
5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

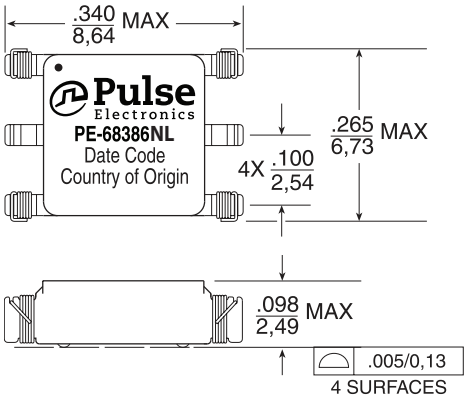
SMT Gate Drive Transformers

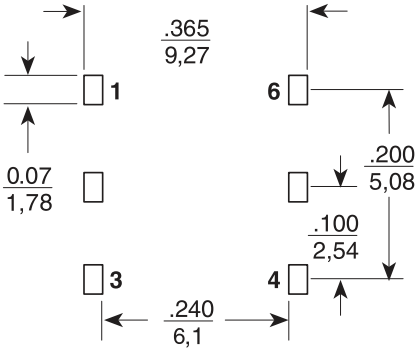
>1500VDC Basic and Functional Insulation

Mechanicals

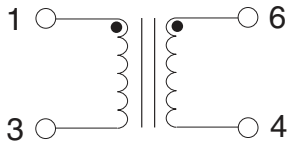
Schematics

PE-68386NL





SUGGESTED PAD LAYOUT

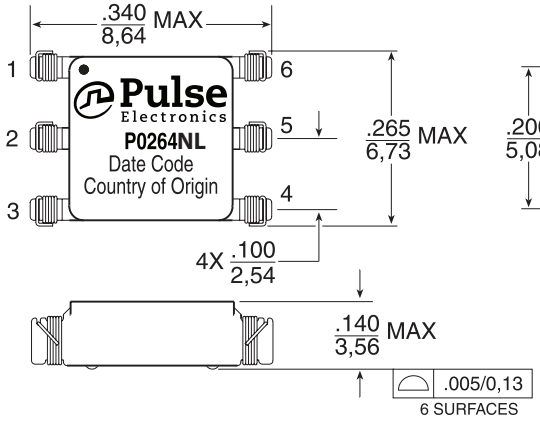


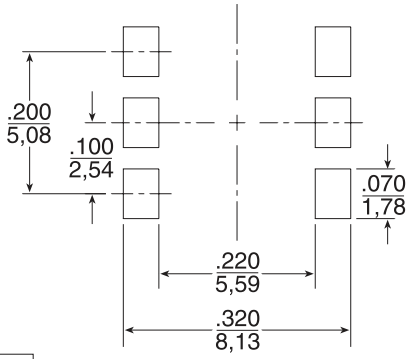
Weight .....0.28 grams
Tape & Reel 1500/reel
Tube 60/tube

Dimension: Inches / mm

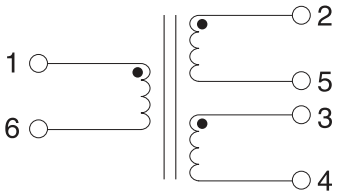
Unless otherwise specified, all tolerances are ± .010 / 0,25

PA0264NL





SUGGESTED PAD LAYOUT

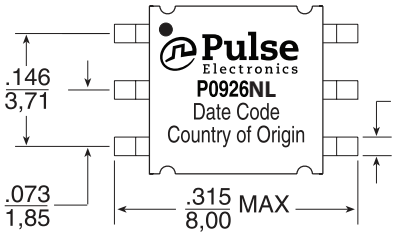


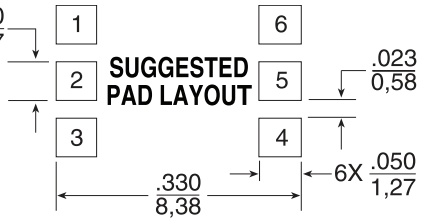
Weight .....0.28 grams
Tape & Reel 1500/reel
Tube 60/tube

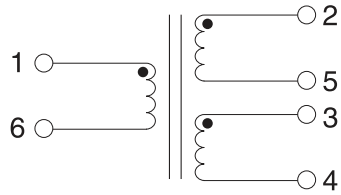
Dimension: Inches / mm

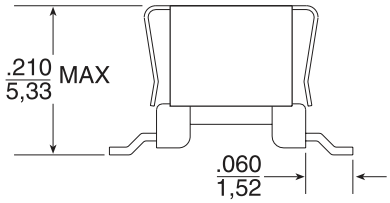
Unless otherwise specified, all tolerances are ± .010 / 0,25

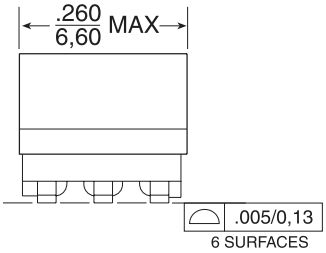
P0926NL











Weight .....0.48 grams
Tape & Reel 1000/reel
Tube 80/tube

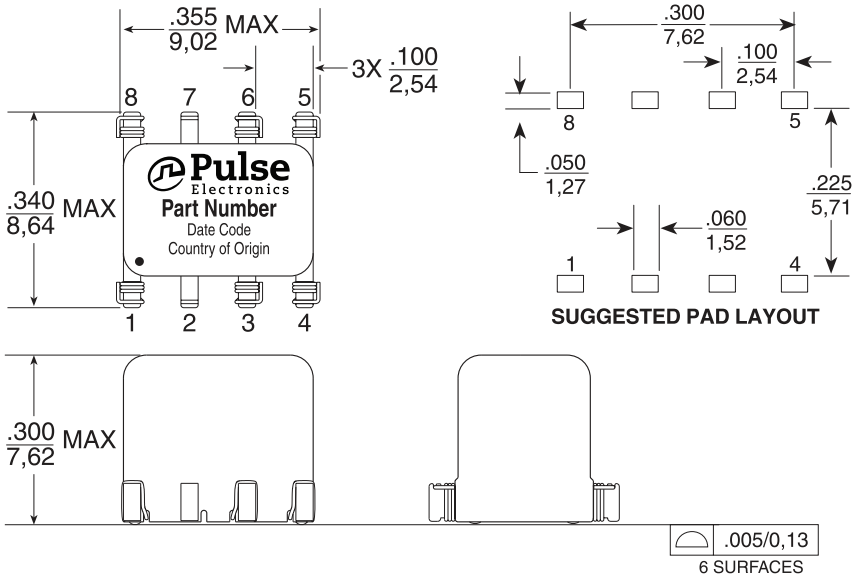
Dimension: Inches / mm

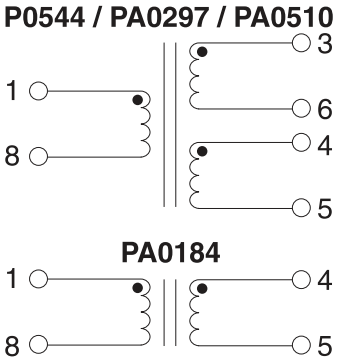
Unless otherwise specified, all tolerances are ± .010 / 0,25

Mechanicals *(continued)*

Schematics

P0544NL, PA0297, PA0510, PA0184NL



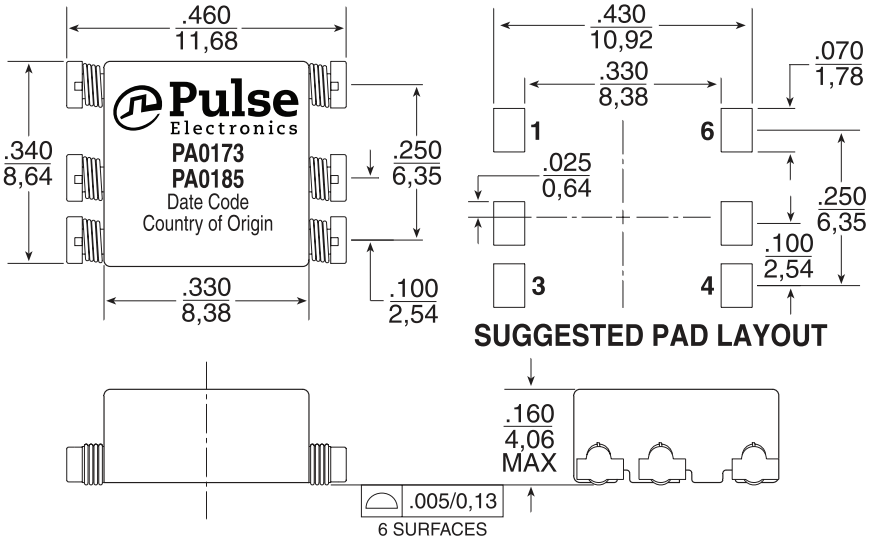


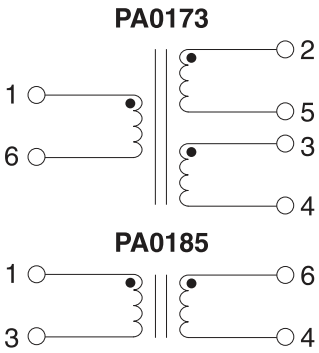
Weight .....0.60 grams
Tape & Reel 40/reel
Tube 50/tube

Dimension: Inches / mm

Unless otherwise specified, all tolerances are ± .010 / 0,25

PA0173, PA0185





Weight .....0.48 grams
Tape & Reel 900/reel
Tube 60/tube

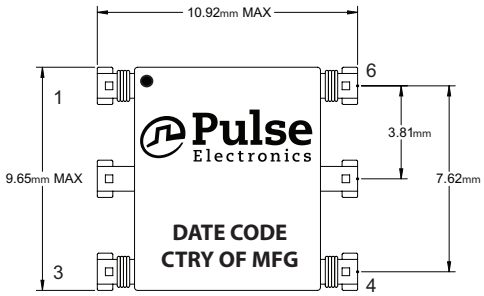
Dimension: Inches / mm

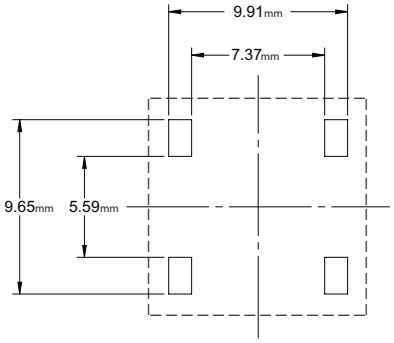
Unless otherwise specified, all tolerances are ± .010 / 0,25

Mechanicals *(continued)*

Schematics

PA3493NL





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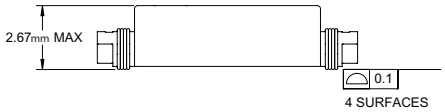
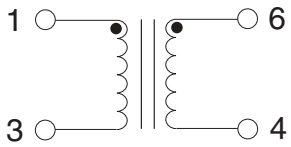


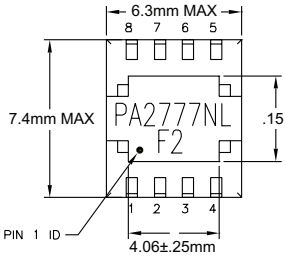


Weight .....0.31 grams
Tape & Reel 1250/reel
Tube 50/tube

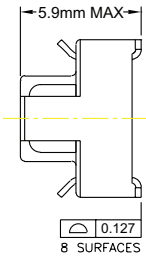
Dimension: mm

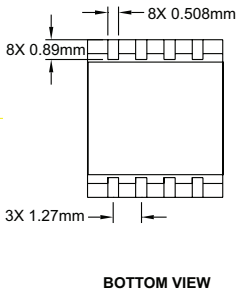
Unless otherwise specified, all tolerances are ± 0,25

PA2777NL

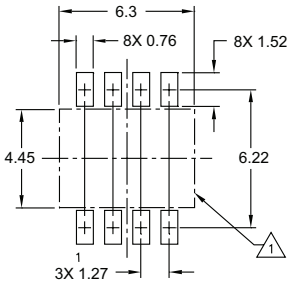


TOP VIEW

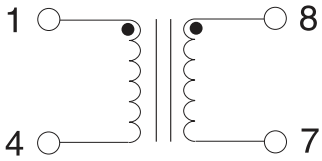




BOTTOM VIEW



SUGGESTED LAND PATTERN



Weight .....0.32 grams
Tape & Reel 850/reel
Tube 120/tube

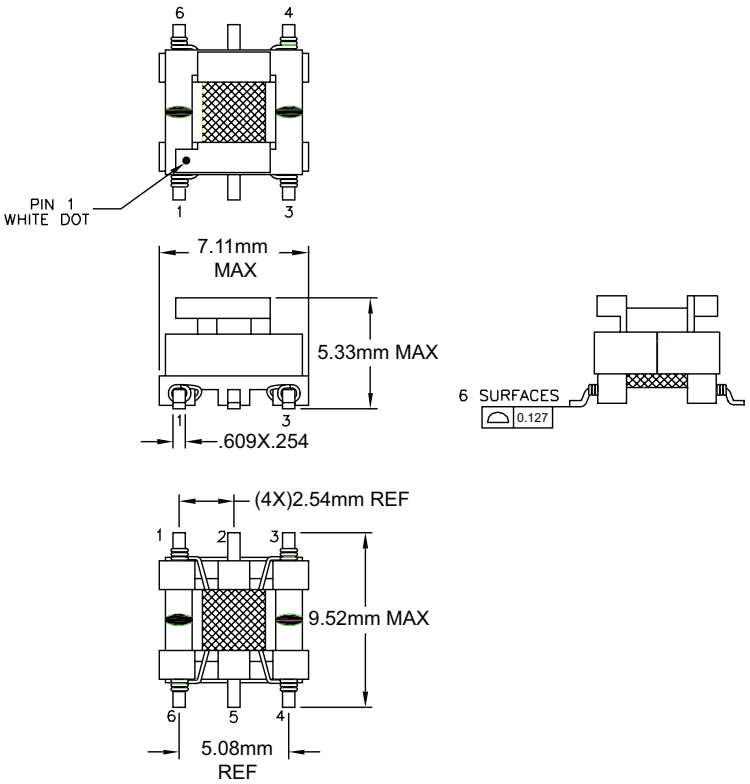
Dimension: mm

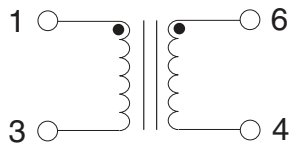
Unless otherwise specified, all tolerances are ± 0,25

Mechanicals *(continued)*

Schematics

PA1323NL

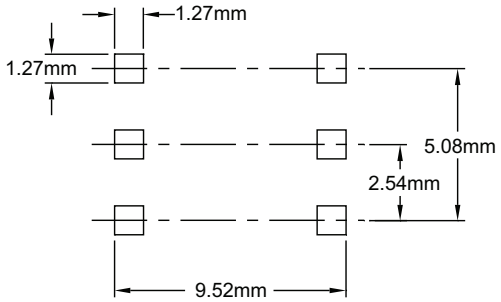




Weight .....0.4 grams
Tape & Reel 700/reel
Tube 225/tube

Dimension: mm

Unless otherwise specified, all tolerances are ± 0,25



SUGGESTED PCB LAYOUT