

# SMT GATE DRIVE TRANSFORMERS

Ruggedized



- ⊗ 1500Vrms (380Vrms continuous)
- ⊗ Basic Insulation (1.4mm creepage/clearance and operational available)
- ⊗ Tin/Lead Finish: Sn63/Pb37
- ⊗ Moisture Sensitivity Level: 3

## Electrical Specifications @ 25 °C – Operating Temperature – 55 °C to +125 °C<sup>5</sup>

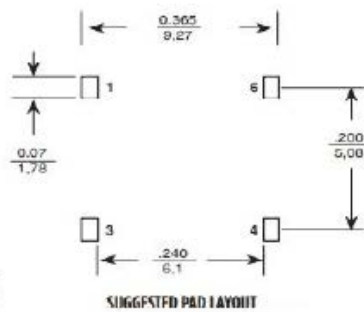
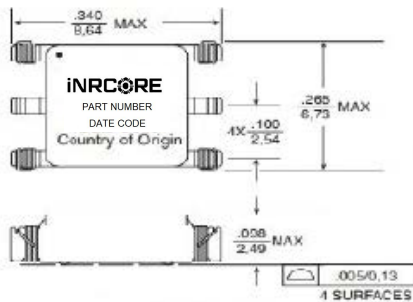
Part Number	Turns Ratio	Pri-Sec Insulation (VRMS)	MAX <sup>1</sup> V* $\mu$ sec	Primary Inductance ( $\mu$ H MIN)	Leakage Inductance ( $\mu$ H Max)	DCR Primary ( $\Omega$ MAX)	DCR Secondary ( $\Omega$ MAX)	Package Size (LxWxH) (mm MAX)
PL2072	1:1	1500	12	403	0.46	0.60	0.60	8.6 x 6.7 x 2.5
PL2073	1:1:1	1500	20	437	0.85	0.85	0.85	8.6 x 6.7 x 3.6

- Notes:
- The maximum volt- $\mu$ sec limits the peak flux density to 2800 Gauss when used in a unipolar drive application. For bi-polar drive applications, a maximum volt- $\mu$ sec of two times this rating is acceptable:-  
(i.e. 2\* (volt\*  $\mu$ sec rating) Volt\* $\mu$ sec = (voltage applied to the primary) \* dutycycle / Frequency =V\* alpha/ Freq\_Hz =V\* $\mu$ 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. PL2072 becomes **PL2072T**).
  - Add suffix "NL" for RoHS compliant part: i.e. PL2072 and PL2073 becomes **PL2072NL** and **PL2073NL**.
  - 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

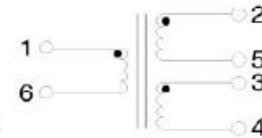
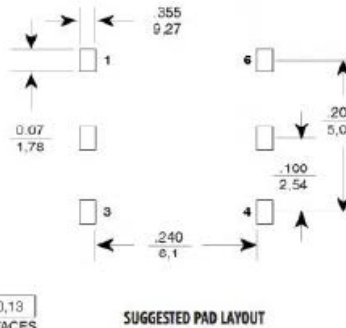
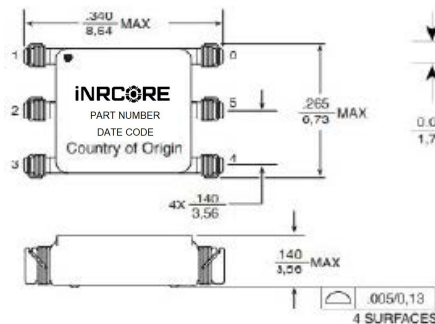
### Electrical Schematic

#### PL2072



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

#### PL2073

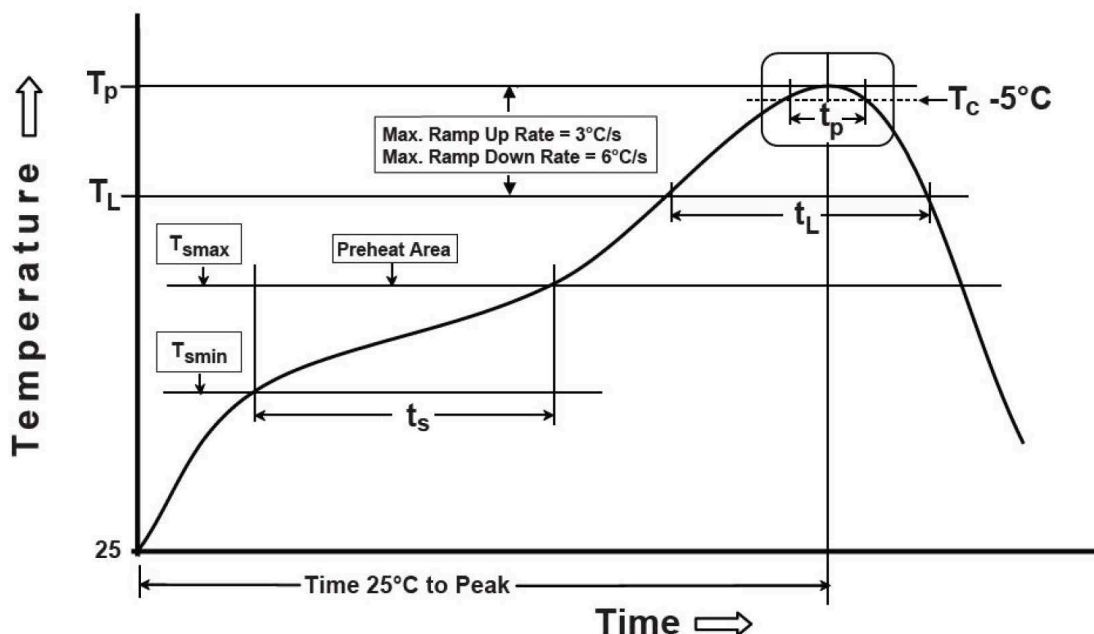


Weight ..... 0.25 grams  
Tape & Reel ..... 800/reel  
Tube ..... 75/tube

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



## Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



$T_{SMIN}$ (°C)	$T_{SMAX}$ (°C)	$T_L$ (°C)	$T_P$ (°C MAX)	$t_s$ (s)	$t_L$ (s)	$t_p$ (s MAX)	Ramp-up rate ( $T_L$ to $T_P$ )	Ramp-down rate ( $T_P$ to $T_L$ )	Time 25°C to peak temperature (s MAX)
100	150	183	235	60-120	60-150	20	3°C/s MAX	6°C/s MAX	360

Notes:

1. All temperatures measured on the package leads.
2. Maximum times of reflow cycle: 2.

### For More Information

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