

# SMT GATE DRIVE TRANSFORMERS

1500VDC Basic and Operational Insulation  
Ruggedized



- 500Vdc isolation between gate and drive
- Basic insulation(1.4mm creepage/clearance) and operational available
- Moisture Sensitivity Level: 1

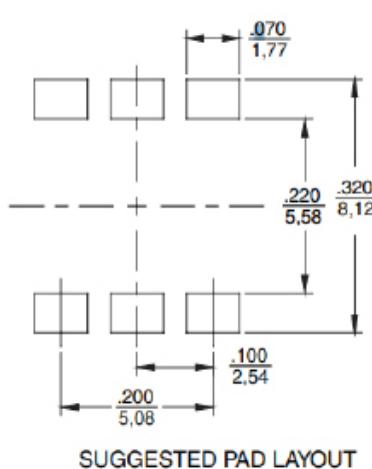
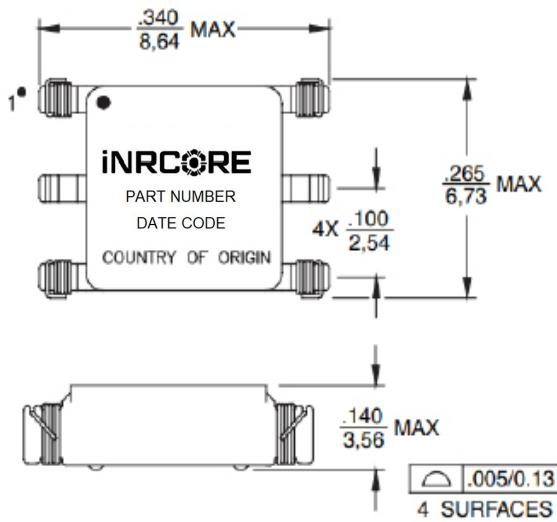
## Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C

Part Number	Turns Ratio	Pri-Sec Insulation (Vdc)	MAX (v* usec)	Primary Inductance (uH MIN)	Leakage Inductance (uH MAX)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	Package Size
PL1960	1:1	1500.00	9.700	785.0	0.46	0.60	0.6	8.6x6.7x2.5

### NOTES:

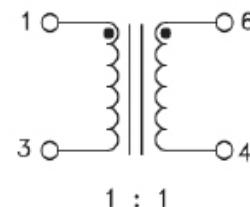
1. The maximum volt-usec rating limits the peak flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications a maximum volt-usec of two times this rating is acceptable (ie:  $2^* \text{ (volt)*usec rating)} \text{ Volt}^* \text{usec} = (\text{voltage applied to the primary}) * \text{dutycycle} / \text{Frequency} = V^* \alpha / Freq\_Hz = V^* \mu\text{sec}$ )
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. PL1960 becomes **PL1960T**).
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
5. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

## Mechanical



SUGGESTED PAD LAYOUT

## Electrical Schematic



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

Dimensions: Inches  
mm  
Unless otherwise specified,  
all tolerances are  $\pm .010$   
 $.025$

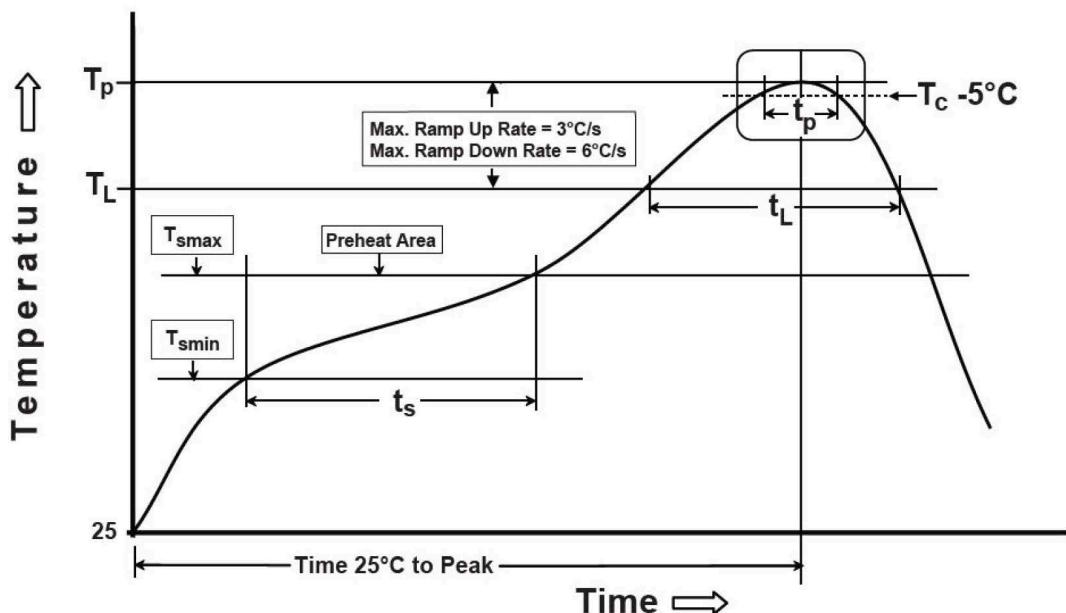


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## Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



T <sub>sMIN</sub> (°C)	T <sub>sMAX</sub> (°C)	T <sub>L</sub> (°C)	T <sub>P</sub> (°C MAX)	t <sub>s</sub> (s)	t <sub>L</sub> (s)	t <sub>P</sub> (s MAX)	Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	Ramp-down rate (T <sub>P</sub> to T <sub>L</sub> )	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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