

GATE DRIVE TRANSFORMER

Ruggedized



- R** 2700VDC isolation between Gate and Drive
- R** Operating Frequency: 50KHz and up
- R** Footprint Size: 8.25*6.9*3.0mm Max
- R** Three Windings (one drive and two gates)
- R** Storage & Operating Temperature: -55°C to +130°C
- R** Solder Dip Finish: Sb5
- R** Moisture Sensitivity Level: 1

Electrical Specifications @ 25°C

Part Number	Turns Ratio	Pri-Sec Insulation (VDC)	Primary Inductance ($\mu\text{H} \pm 35\%$)	Leakage Inductance ($\mu\text{H} \text{ Max}$)	Max Volt-usec (1-2)	DCR (1-2) ($\Omega \text{ Max}$)	DCR (3-4) ($\Omega \text{ Max}$)	DCR (4-5) ($\Omega \text{ Max}$)
PL3159NL	1:1:1	2700	780	0.4	21.0	0.85	0.85	0.85

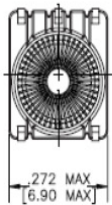
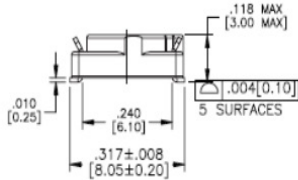
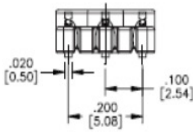
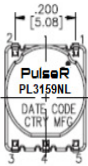
Notes: Add suffix "T" to indicate Tape and Reel Packing (i.e. PL3159NL becomes PL3159NLT)

- The maximum volt- μsec rating limits the peak flux density to 2500 Gauss when used in a unipolar drive application. For bi-polar drive applications, a maximum volt-sec of 1.5 times this rating is acceptable (ie: volt* μsec rating=(voltage applied to the primary)*duty cycle/Frequency= $V^2 \alpha / \text{Freq_Hz} = V^2 \mu\text{sec}$).
- All inductance tests measured at 100kHz, 100mV. Leakage inductance measured from (1-2) with 3,4,5 shorted.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

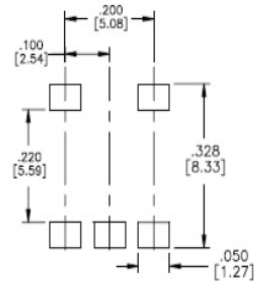
PL3159NL

Mechanical

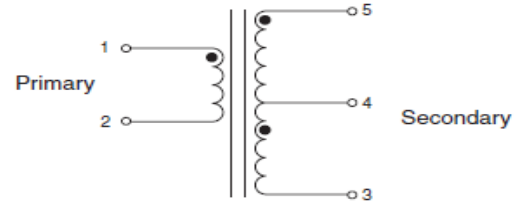
Schematic



FINAL OUTLINE



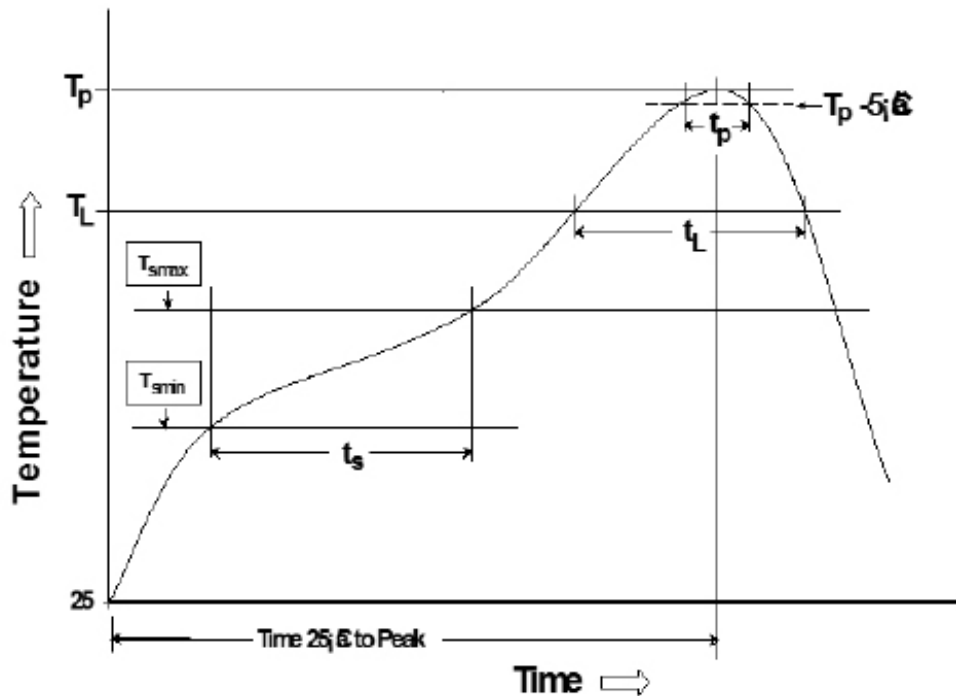
SUGGESTED LAND PATTERN



Weight.....1.2grams
 Tube.....75/tube
 Tape&Reel.....1000/reel

Dimensions: Inches/mm
Unless otherwise specified,
all tolerances are $\pm .005/0.13$

Transceiver 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	225	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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