

# GATE DRIVE TRANSFORMER

Military/Aerospace Grade



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

## Electrical Specifications @ 25°C

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

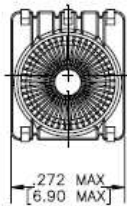
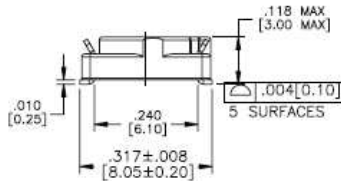
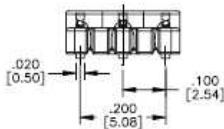
**Notes:** Add suffix "T" to indicate Tape and Reel Packing (i.e. PL3159NL becomes PL3159NLT)

- The maximum volt- $\mu\text{sec}$  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\*  $\mu\text{sec}$  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.

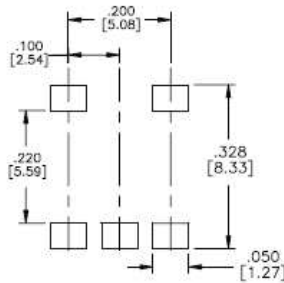
### PL3159NL

### Mechanical

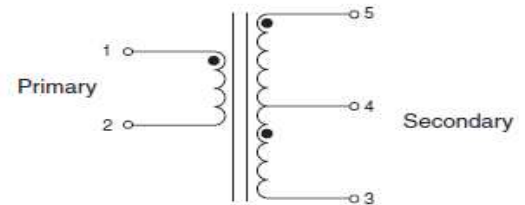
### Schematic



FINAL OUTLINE



SUGGESTED LAND PATTERN



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

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

### For More Information

**Pulse North America Headquarters**  
 Two Pearl Buck Court  
 Bristol, PA 19007  
 U.S.A.

Tel: 215 781 6400  
 Fax: 215 781 6403

**Pulse Europe**  
 Zeppelinstrasse 15  
 71083 Herrenberg  
 Germany

Tel: 49 7032 7806 0  
 Fax: 49 7032 7806 12

**Pulse China Headquarters**  
 B402, Shenzhen Academy of Aerospace Technology Bldg.  
 10th Kejinan Road  
 High-Tech Zone  
 Nanshan District  
 Shenzhen, PR China 518057

Tel: 86 755 33966678  
 Fax: 86 755 33966700

**Pulse North China**  
 Room 2704/2705  
 Super Ocean Finance Ctr.  
 2067 Yan An Road West  
 Shanghai 200336  
 China

Tel: 86 21 62787060  
 Fax: 86 2162786973

**Pulse South Asia**  
 135 Joo Seng Road  
 #03-02  
 PM Industrial Bldg.  
 Singapore 368363

Tel: 65 6287 8998  
 Fax: 65 6287 8998

**Pulse North Asia**  
 3F No. 198, Zhongyuan Road  
 Zhongli City  
 Taoyuan County (32068)  
 Taiwan

Tel: 886 3 4356768  
 Fax: 886 3 4356823

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2013. Pulse Electronics, Inc. All rights reserved.