

# GATE DRIVE TRANSFORMER

Ruggedized



- ⊗ 4000Vrms gate to drive isolation
- ⊗ 1500Vrms Continuous Isolation between windings
- ⊗ Operating Temperature: -55°C to +130°C
- ⊗ Lead Finish: Sn100
- ⊗ Moisture Sensitivity Level: 3

## Electrical Specifications @ 25°C

| Part Number | Turns Ratio<br>100KHz, 1Vrms<br>(±2%) |             | ET <sup>2</sup><br>(V*μsec)<br>MAX | Primary Inductance<br>100KHz, 100mVrms<br>(mH MIN) | Leakage Inductance<br>100KHz, 100mVrms<br>(μH MAX) | Parasitic Capacitance<br>100KHz, 100mVrms<br>(pF MAX) | DCR<br>(Ω MAX) |       |       | DWV<br>@5S MIN<br>(Vrms) |       |
|-------------|---------------------------------------|-------------|------------------------------------|--|--|---|----------------|-------|-------|--------------------------|-------|
|             | (1-4):(8-7)                           | (1-4):(6-5) |                                    |  |  |   | (1-4)          | (1-4) | (1-4) | (8-7)                    | (6-5) |
| PL3602NL    | 2.0                                   | 2.0         | 375                                | 6.40   | 8.0  | 60  | 2.2            | 1.6   | 1.6   | 4000                     | 1500  |

### NOTES:

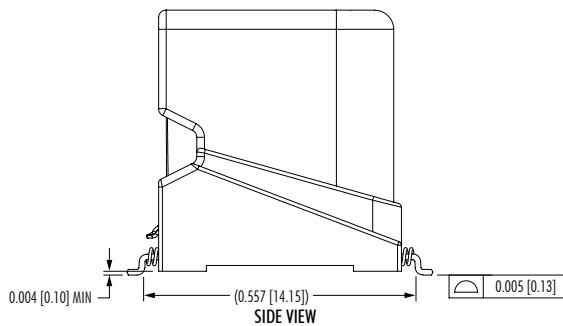
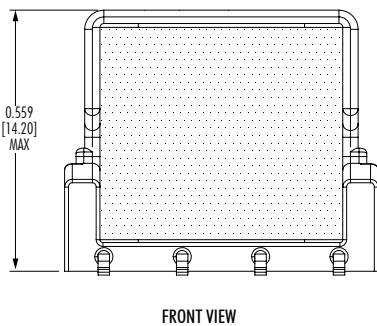
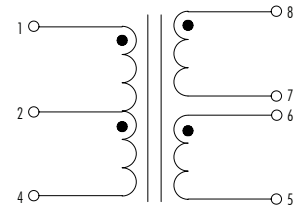
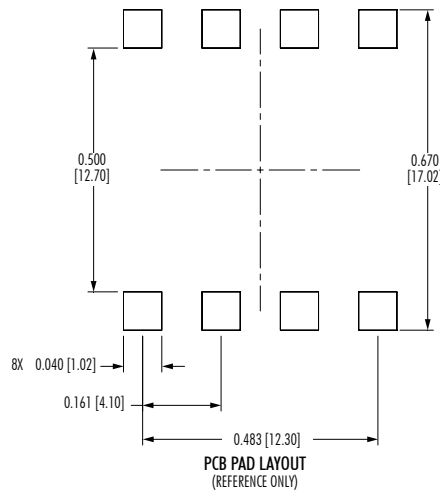
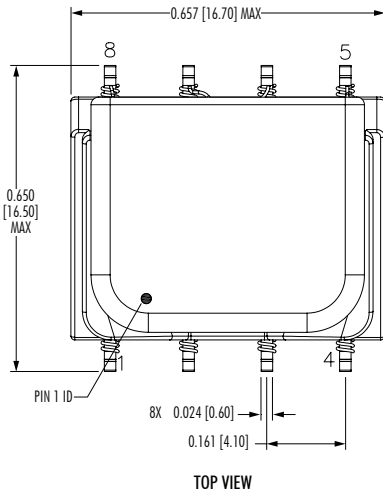
1. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. PL3602NLT.
2. For design information only, the maximum volt-μsec to limit the core loss and temperature at 100 kHz base on a bipolar flux swing of 2100Ga peak.

### Mechanicals

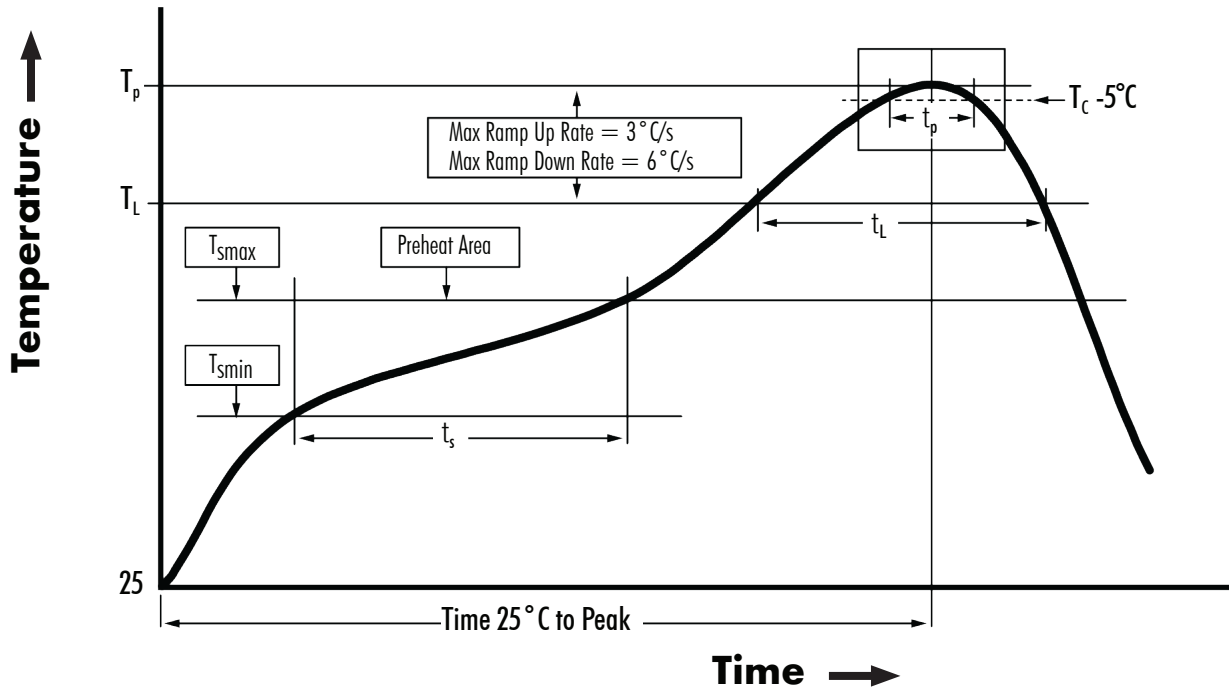
### Electrical Schematics

PL3602NL

Dimensions: inch [mm]  
Tolerance (unless otherwise specified): ±0.010 [0.25]



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



| $T_{SMIN}$<br>(°C) | $T_{SMAX}$<br>(°C) | $T_L$<br>(°C) | $T_P$<br>(°C MAX) | $t_s$<br>(s) | $t_L$<br>(s) | $t_p$<br>(s MAX) | Ramp-up rate<br>( $T_L$ to $T_p$ ) | Ramp-down rate<br>( $T_p$ to $T_L$ ) | Time<br>25°C to peak temperature<br>(s MAX) |
|--------------------|--------------------|---------------|-------------------|--------------|--------------|------------------|------------------------------------|--------------------------------------|---|
| Non-Lead Profile   |                    |               |                   |              |              |                  |                                    |                                      |   |
| 150                | 200                | 217           | 245               | 60 - 120     | 60 - 150     | 30               | 3°C/s MAX                          | 6°C/s MAX                            | 480   |

### NOTES:

1. All temperatures measured on the package leads.
2. Maximum number of reflow cycles not to exceed 2.

