

# SMT Gate Drive Transformer

1500Vdc Basic and Operational Insulation



- ⊗ 1500 V<sub>DC</sub> isolation between Gate and Drive
- ⊗ Basic Insulation (1.4mm creepage/clear-ance) and operational available
- ⊗ Part designed for rugged environments
- ⊗ Construction techniques assure excellent resistance to vibration and shock
- ⊗ Operating frequency: 50kHz and up
- ⊗ Moisture Sensitivity Level : 3

## Electrical Specifications @ 25 °C – Operating Temperature – 55 °C to +130 °C

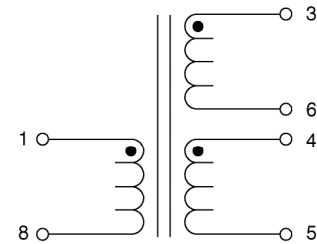
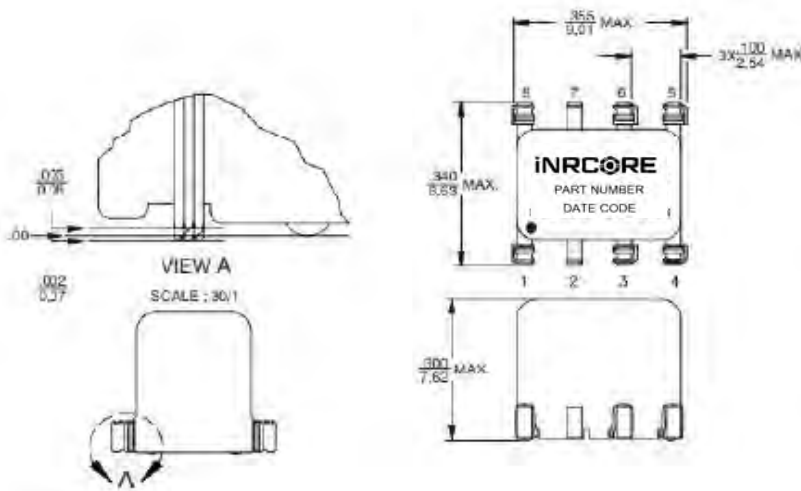
Part Number	Turns Ratio	Pri-Sec Isolation (V <sub>DC</sub> )	MAX <sup>1</sup> V* $\mu$ sec	Primary Inductance (mH MIN)	Leakage <sup>2</sup> Inductance ( $\mu$ H MAX)	DCR Primary ( $\Omega$ MAX)	DCR Secondary ( $\Omega$ MAX)	Package Size (L x W x H) mm MAX)
X-1569	1:1:1	1500	45.1	3.3	0.700	1.6	1.6	9.0 x 8.6 x 7.6

- NOTES: 1. The maximum volt-sec rating limits the flux density to 2200 Gauss when used in a unipolar drive application. For bi-polar drive applications a maximum volt-sec of two time this rating is acceptable. (2\*(volt\* $\mu$ sec ratio))
2. Leakage Inductance is measured at the primary terminals with all secondaries shorted.
3. Add suffix "T" to part number for Tape & Reel package.
4. To order a RoHS compliant part, add the suffix "NL" to the part number, i.e. X-1569 becomes X-1569NL.

### Mechanical

### Electrical Schematic

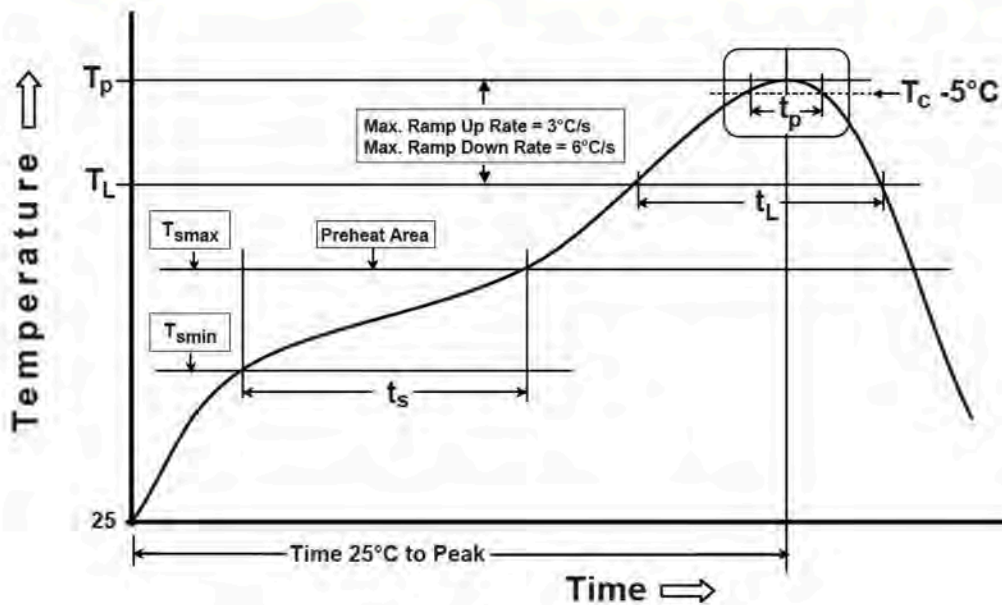
X-1569



Part hardened for aerospace use.



## 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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