## **SMT Gate Drive Transformer**

1500Vdc Basic and Operational Insulation



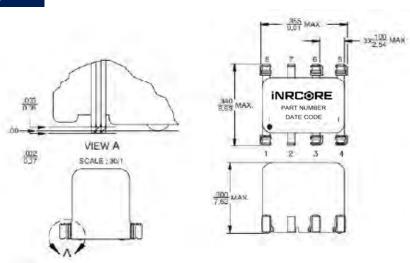
- 1500 Vpc isolation between Gate and Drive
- Basic Insulation (1.4mm creepage/clear-ance) and operational available
- Part designed for rugged environments
- Construction techniques assure excellent resistance to vibration and shock
- Operating frequency: 50kHz and up
- Moisture Sensitivity Level: 3

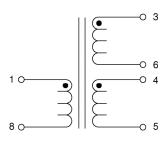
| Electrical Specifications @ 25 °C – Operating Temperature $-$ 55 °C to $\pm$ 130 °C |       |                    |                  |                    |                                 |                |                |                 |  |  |  |
|---|-------|--------------------|------------------|--------------------|---------------------------------|----------------|----------------|-----------------|--|--|--|
| Part  | Turns | Pri-Sec Isulation  | MAX <sup>1</sup> | Primary Inductance | Leakage <sup>2</sup> Inductance | DCR Primary    | DCR Secondary  | Package Size    |  |  |  |
| Number  | Ratio | (V <sub>DC</sub> ) |                  |                    |                                 |                |                | (L x W x H)     |  |  |  |
| Homboi  |       |                    | V*µsec           | (mH MIN)           | (µH MAX)                        | $(\Omega MAX)$ | $(\Omega MAX)$ | 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\*usec 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.

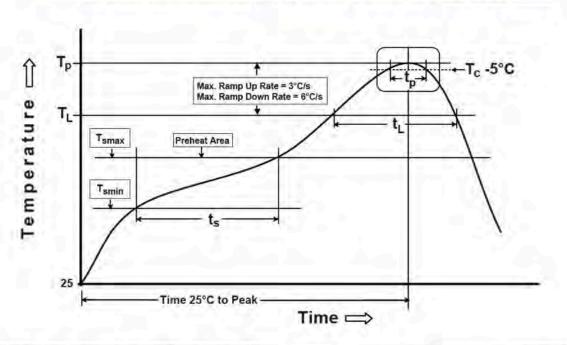


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## Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



| T <sub>SMIN</sub> T <sub>SMAX</sub> (°C) (°C) |     | 100000000000000000000000000000000000000 | T <sub>P</sub><br>(°C MAX) | t <sub>S</sub> | t <sub>L</sub><br>(s) | t <sub>P</sub> (s MAX) | Ramp-up rate<br>(T <sub>L</sub> to T <sub>P</sub> ) | Ramp-down rate<br>(T <sub>P</sub> to T <sub>L</sub> ) | Time<br>25°C to peak temperature<br>(s MAX) |  |
|---|-----|---|----------------------------|----------------|-----------------------|------------------------|---|---|---|--|
| 100   | 150 | 183 235 60-120 60-150 20 3°C            |                            | 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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### Global Sales Representatives and Locations:

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