# SIGNAL ISOLATION SMT TRANSFORMER

Ruggedized



• Isolation Voltage: 3kVrms

• Operating Temperature:  $-55^{\circ}$ C to  $+125^{\circ}$ C • Storage Temperature:  $-55^{\circ}$ C to  $+125^{\circ}$ C

Lead Finish: Sn63/Pb37Moisture Sensitivity Level: 3

| Electrical Specifications @ 25°C |                              |                                   |                |                                   |                 |                              |                 |  |  |  |  |
|----------------------------------|------------------------------|-----------------------------------|----------------|-----------------------------------|-----------------|------------------------------|-----------------|--|--|--|--|
| Part<br>Number                   | Turns Ratio<br>(Pri:Sec ±2%) | Primary<br>Inductance<br>(mH MIN) | DCR<br>(Ω MAX) | Leakage<br>Inductance<br>(µH MAX) | Cww<br>(pF MAX) | Cd Pri<br>@10MHz<br>(pF MAX) | Primary<br>Pins |  |  |  |  |
| X-1620                           | 1СТ:1СТ                      | 1                                 | 0.80           | 1.20                              | 25              | 10                           | 1 - 3           |  |  |  |  |

### NOTES:

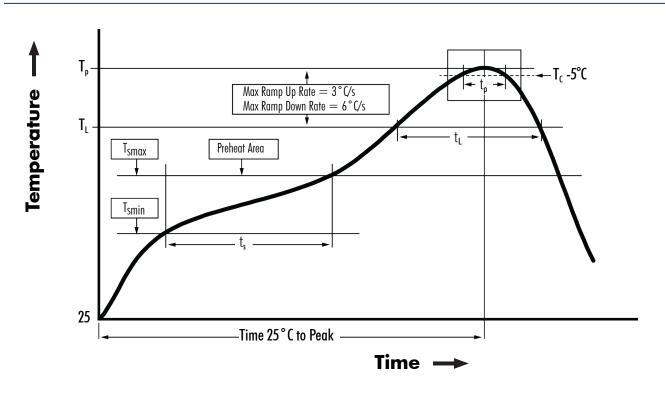
- 1. Add suffix "NL" for RoHS compliant version; i.e. X-1620 becomes X-1620NL. NL parts have 100% SN Lead Finish.
- 2. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. X-1620T.

## **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] X-1620 0.395 PIN 1 ID 6X 0.020 [0.51] → 6X 0.030 [0.76] SUGGESTED PAD LAYOUT (REFERENCE ONLY) **TOP VIEW ▼** 0~8° 0.004 0.025 [0.64] SIDE VIEW 0.500 [12.70] MAX SIDE VIEW





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



| T <sub>smin</sub><br>(°C) | T <sub>smax</sub><br>(°C) | T <sub>L</sub><br>(°C) | T <sub>P</sub><br>(°C MAX) | † <sub>s</sub><br>(s) | t <sub>L</sub><br>(s) | t <sub>p</sub><br>(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) |  |  |
|---------------------------|---------------------------|------------------------|----------------------------|-----------------------|-----------------------|---------------------------|---|---|---|--|--|
| Tin/Lead Profile          |                           |                        |                            |                       |                       |                           |   |   |   |  |  |
| 100                       | 150                       | 183                    | 220                        | 60 - 120              | 60 - 150              | 20                        | 3°C/s MAX   | 6°C/s MAX   | 360   |  |  |
| 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.

