

# 10/100BASE - TX SINGLE PORT TRANSFORMER MODULE

Ruggedized

# iNRCORE



- Compliant with IEEE 802.3u & ANSI X3.263 standards
- 350 $\mu$ H OCL with 8mA D.C.bias
- Operating and storage temperature:  
100B-1001 & 100B-1003: -40°C to +85°C  
100B-1001X & 100B-1003X: -55°C to +125°C
- Moisture Sensitivity Level: 3
- Maximum Isolation Voltage: 1500 VAC

## Electrical Specifications @ 25°C

| Part Number | Insertion Loss (dB MAX) |        |        |        |         | Return Loss (dB MIN) |        |        |        |        | Crosstalk (dB MIN) |        |        |        | DM to CM Rejection Ratio (dB MIN) |        |        |         |
|-------------|-------------------------|--------|--------|--------|---------|----------------------|--------|--------|--------|--------|--------------------|--------|--------|--------|-----------------------------------|--------|--------|---------|
|             | 0.10 MHz                | 30 MHz | 60 MHz | 80 MHz | 100 MHz | 2 MHz                | 30 MHz | 50 MHz | 60 MHz | 80 MHz | 16 MHz             | 30 MHz | 60 MHz | 80 MHz | 0.10 MHz                          | 30 MHz | 60 MHz | 100 MHz |
| 100B-1001   | 1.0                     | 1.0    | 1.0    | 1.0    | 1.0     | 18                   | 18     | 14     | 12     | 12     | 48                 | 44     | 40     | 38     | 45                                | 40     | 30     | 30      |
| 100B-1001X  | 1.1                     | 1.1    | 1.1    | 1.1    | 1.1     | 18                   | 18     | 14     | 12     | 10     | 48                 | 44     | 40     | 38     | 45                                | 40     | 30     | 33      |
| 100B-1003   | 1.0                     | 1.0    | 1.0    | 1.0    | 1.0     | 20                   | 20     | 14     | 12     | 12     | 48                 | 45     | 40     | 38     | 45                                | 40     | 35     | 35      |
| 100B-1003X  | 1.2                     | 1.2    | 1.2    | 1.2    | 1.2     | 20                   | 20     | 14     | 12     | 12     | 48                 | 45     | 40     | 38     | 45                                | 40     | 35     | 35      |

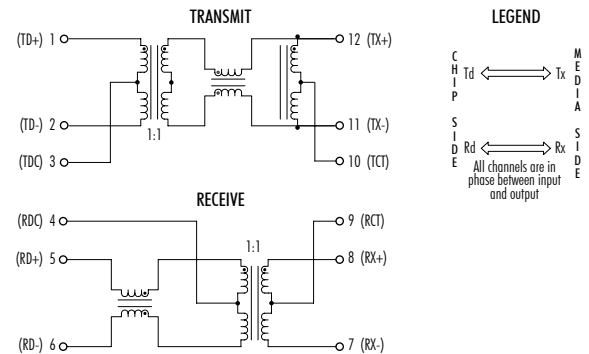
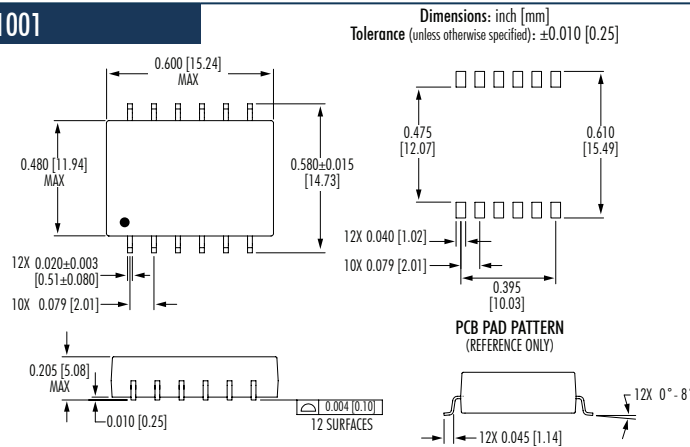
### NOTES:

- Standard Parts have Sn63/Pb37 Lead Finish (MSL:3)
- Add suffix "NL" for RoHS compliant version; i.e. 100B-1001 becomes **100B-1003NL**. NL parts have 100% SN Lead Finish (MSL:4)
- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. **100B-1003XNLT**

### Mechanicals

### Electrical Schematics

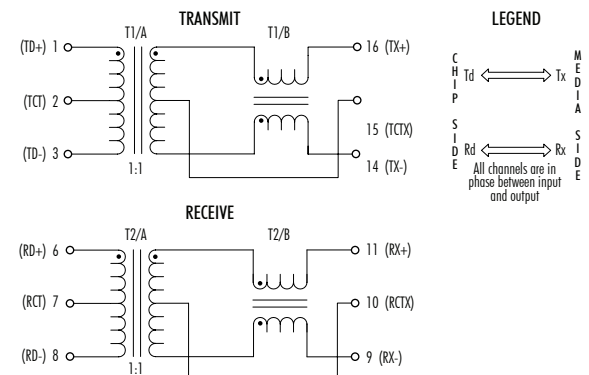
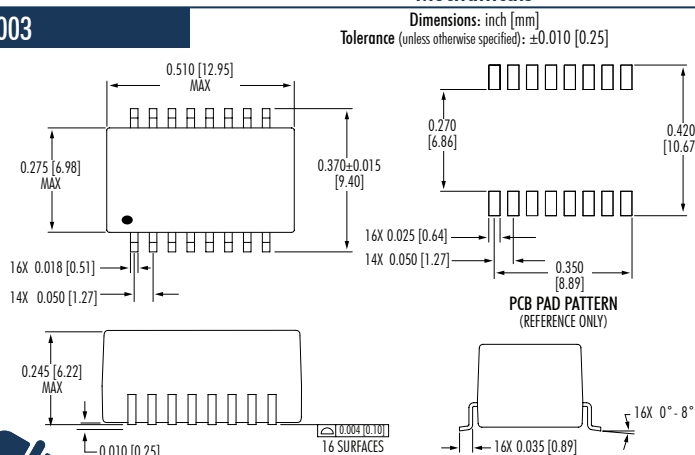
#### 100B-1001



### Mechanicals

### Electrical Schematics

#### 100B-1003



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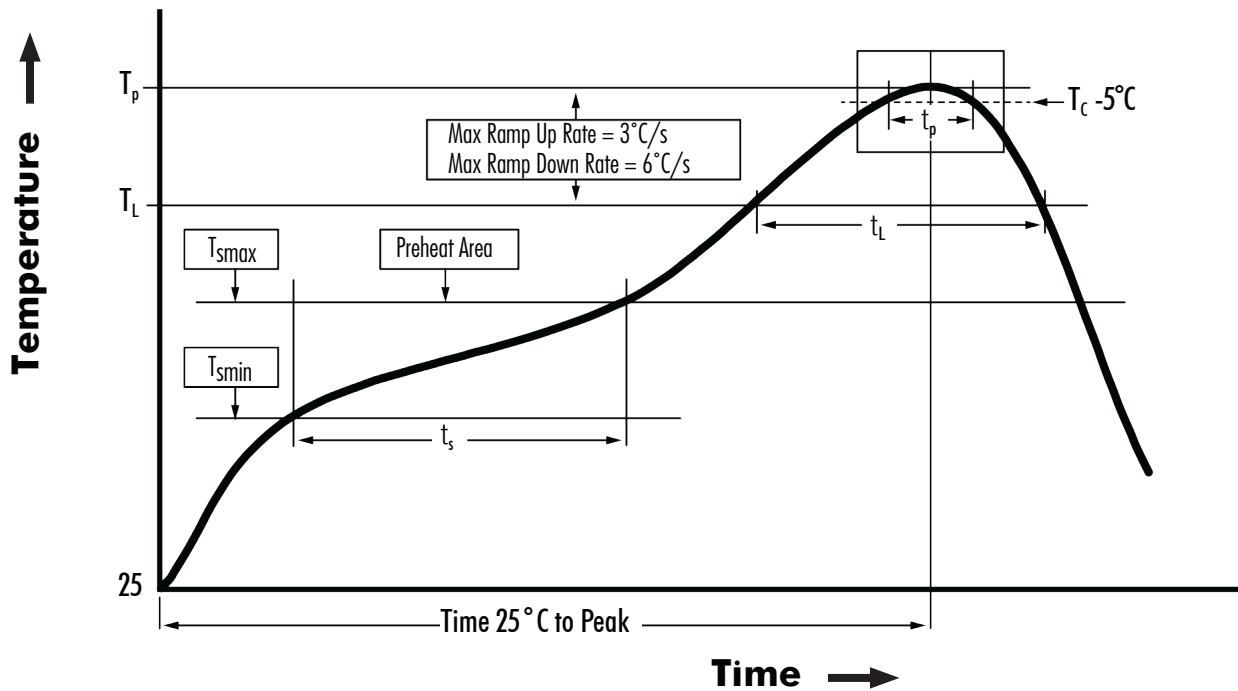
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TRANSFORMER MODULE



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Tin/Lead 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) |
|--------------------|--------------------|---------------|-------------------|--------------|--------------|------------------|------------------------------------|--------------------------------------|---------------------------------------------|
| 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



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