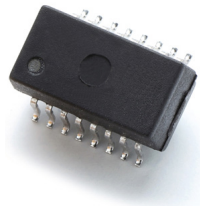


# 10/100BASE - TX SINGLE PORT TRANSFORMER MODULE



Ruggedized



- Compliant with IEEE 802.3 standards
- 350µH OCL with 8mA DC bias
- Epoxy encapsulated package withstands 235°C peak temperature profile
- Operating Temperature: -55°C to +125°C
- Moisture Sensitivity Level: 3

## Electrical Specifications @ 25°C

| Part Number | Insertion Loss (dB MAX) |       |        |        |         | Return Loss (dB MIN) |        |        |        |        | Crosstalk (dB MIN) |        |        |         | DM to CM Rejection (dB MIN) |        |        |         | CM to CM Rejection (dB MIN) |        |        |         |
|-------------|-------------------------|-------|--------|--------|---------|----------------------|--------|--------|--------|--------|--------------------|--------|--------|---------|-----------------------------|--------|--------|---------|-----------------------------|--------|--------|---------|
|             | 0.10 MHz                | 1 MHz | 30 MHz | 60 MHz | 100 MHz | 2 MHz                | 30 MHz | 50 MHz | 60 MHz | 80 MHz | 1 MHz              | 30 MHz | 60 MHz | 100 MHz | 1 MHz                       | 30 MHz | 60 MHz | 100 MHz | 1 MHz                       | 30 MHz | 60 MHz | 100 MHz |
| 100B-1027FX | 1.5                     | 1.5   | 1.5    | 1.5    | 1.5     | 18                   | 18     | 14     | 12     | 10     | 50                 | 45     | 38     | 33      | 42                          | 37     | 33     | 33      | 40                          | 35     | 30     | 30      |

### NOTES:

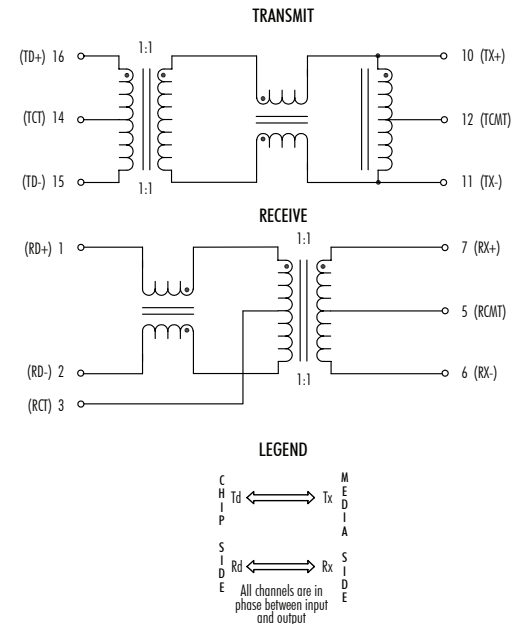
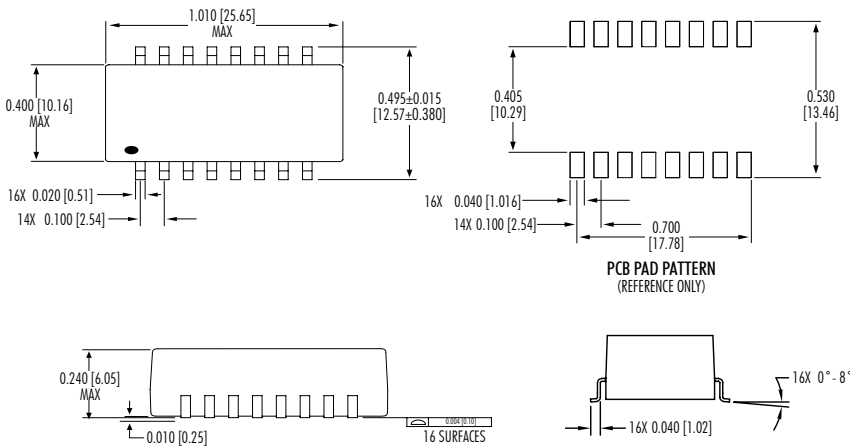
- Add suffix "NL" for RoHS compliant version; i.e. 100B-1001 becomes 100B-1027FXNL. NL parts have 100% SN Lead Finish (MSL:4)
- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 100B-1027FXNLT.

### Mechanicals

### Electrical Schematics

#### 100B-1027FX

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

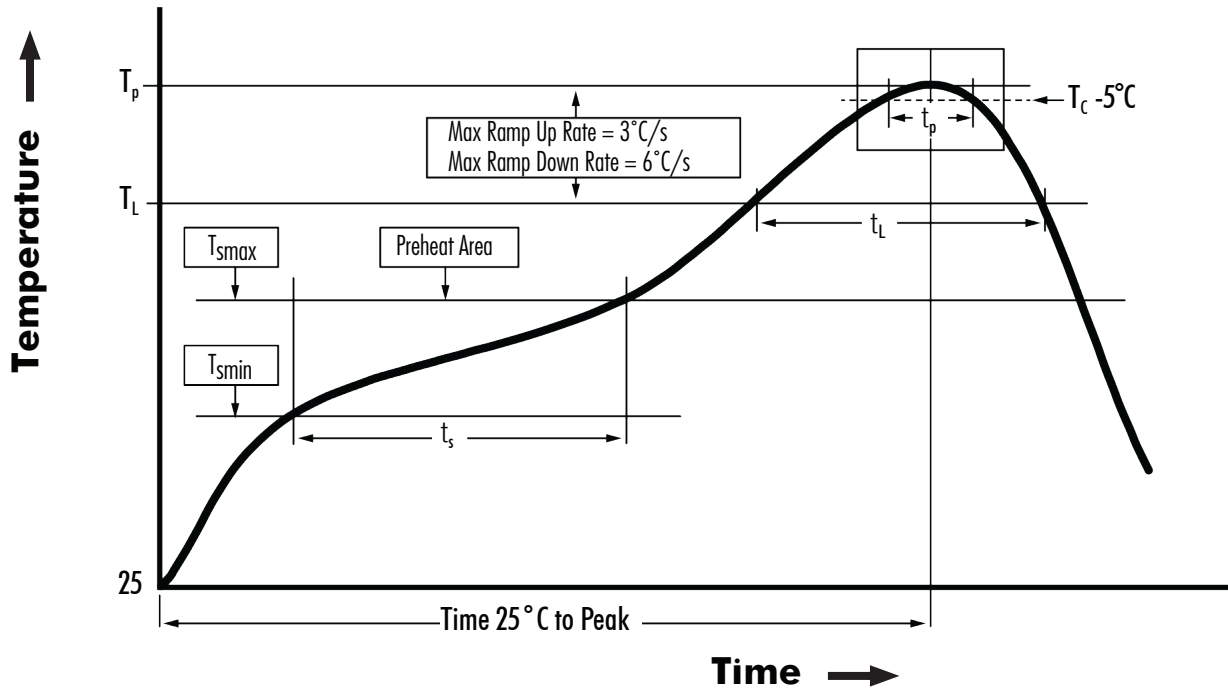


# 10/100BASE - TX SINGLE PORT TRANSFORMER MODULE



Ruggedized

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



| $T_{S_{MIN}}$<br>(°C) | $T_{S_{MAX}}$<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



iNRCORE, LLC  
 311 Sinclair Road, Bristol, PA 19007-6812 USA  
 Tel: +1.215.781.6400 Fax: +1.215.781.6430

[www.iNRCORE.com](http://www.iNRCORE.com)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. iNRCORE, LLC. All rights reserved.

M197.F (10/21)