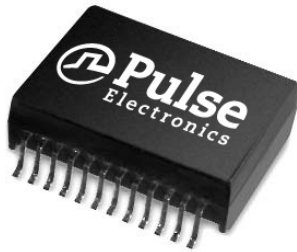


# 10/100BASE-TX DUAL-PORT TRANSFORMER MODULES

Ruggedized



- Compliant with IEEE 802.3u and ANSI X3.263 standards
- Epoxy encapsulated package withstands 235°C peak temperature
- 350µH OCL with 8mA bias at extended temperatures
- Terminal Finish: matte tin allow solder over nickel layer
- Operating and storage temperature:
  - 100B-2002F: -40°C to +85°C
  - 100B-2002FX: -55°C to +125°C
- Lead Finish: Sn63 Pb37 finish for non-RoHS products
- Sn100 Finish: for RoHS products using NL suffix
- MSL: 3

## Electrical Specifications @ 25°C

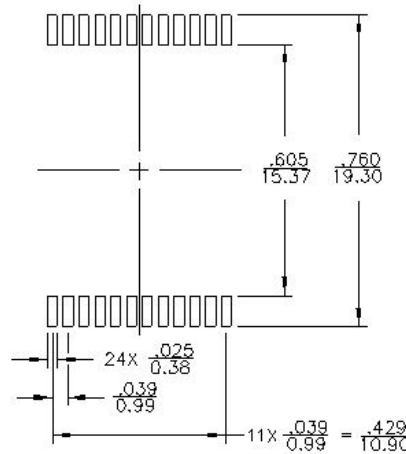
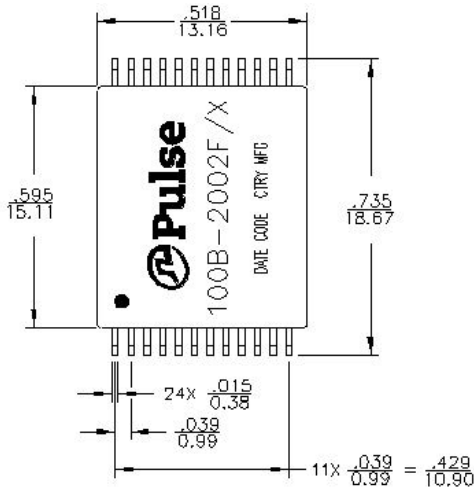
Part Number	Insertion Loss (dB MAX)	Return Loss (dB MAX)				Crosstalk (dB MIN)				DM to CM Rejection Ratio (dB MAX)			Dielectric Withstand Voltage @5s MIN (VRMS)
	0.1-100MHz	2-30MHz	40MHz	50MHz	60-80MHz	1MHz	30MHz	60MHz	100MHz	30 MHz	60 MHz	100 MHz	PRI:SEC
100B-2002F	-1.20	-18	-16	-15	-12	-50	-43	37	-33	-43	-37	-33	1500
100B-2002FX	-1.20	-18	-16	-15	-12	-50	-43	37	-33	-43	-37	-33	1500

Notes: 1. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. 100B-2002F becomes 100B-2002FT). Pulse complies to industry standard tape and reel specification EIA481.

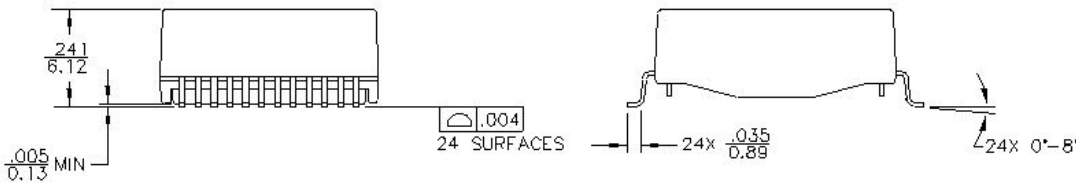
2. Suffix "NL" for RoHS (Sn100 Lead Finish); i.e. 100B-2002FNL  
 3. IC Grade transfer-molded package withstands 235°C peak temperature profile; RoHS version withstands 245°C

## Mechanical

### 100B-2002F/X



SUGGESTED LAND PATTERN



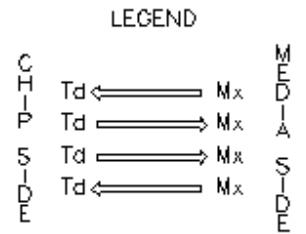
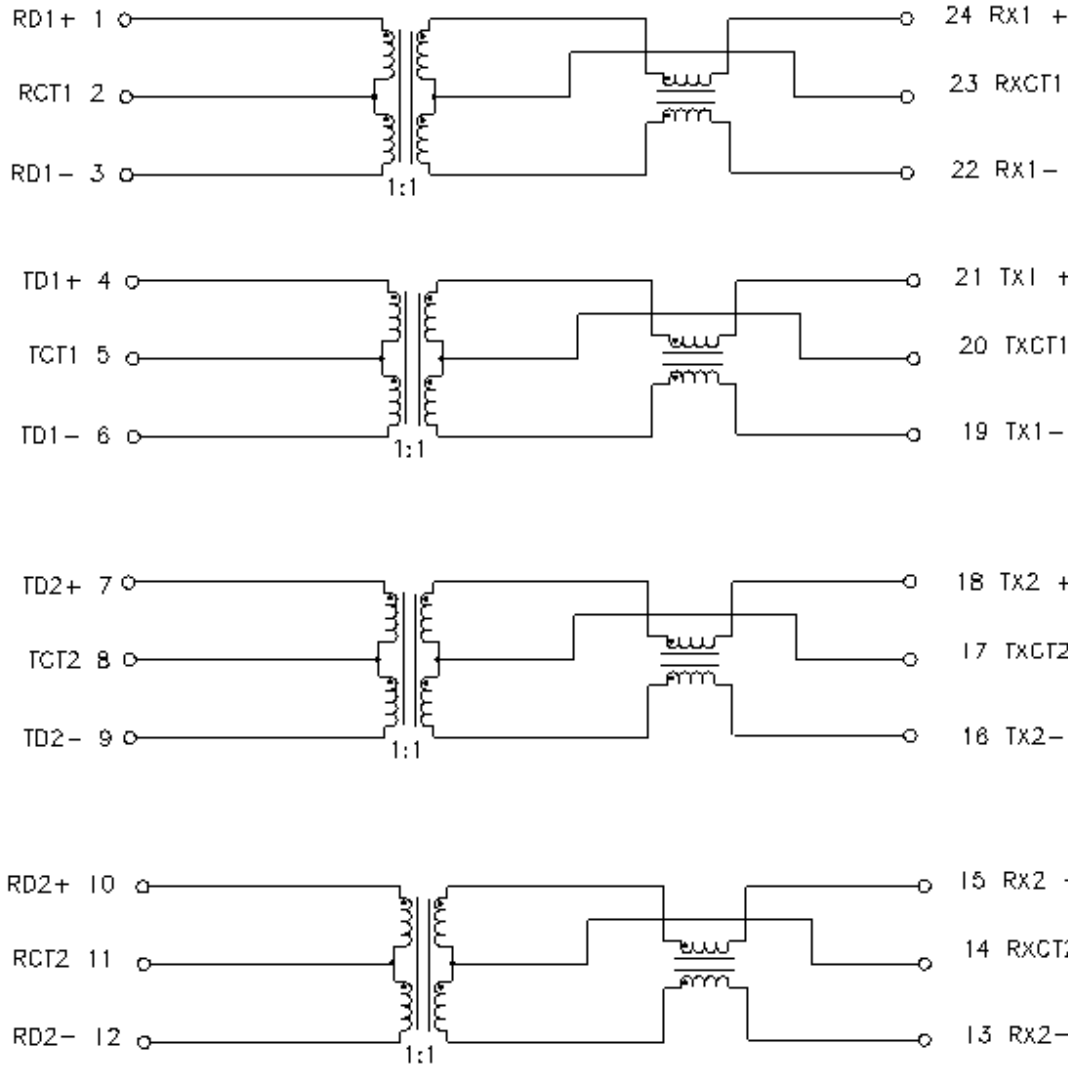
Weight.....3.0grams  
 Tape and Reel.....300/reel  
 Tube.....25/tube  
 Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified,  
 all tolerances are  $\pm \frac{.010}{0.25}$

# 10/100BASE-TX DUAL-PORT TRANSFORMER MODULES

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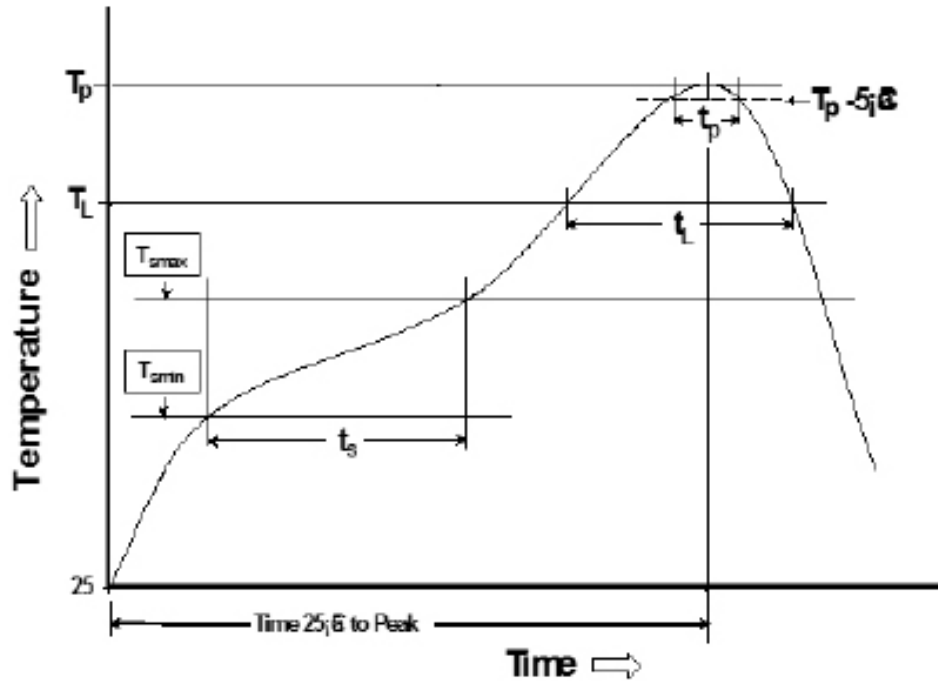
## Schematic

100B-2002F/X



ALL CHANNELS ARE IN-PHASE BETWEEN INPUT AND OUTPUT

## 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

**Pulse North America Headquarters**

Two Pearl Buck Court  
Bristol, PA 19007  
U.S.A.

Tel: 215 781 6400  
Fax: 215 781 6403

**For Global Sales Representatives and Locations Visit:**

<http://www.pulseruggedized.com>

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