

# 10/100BASE - TX SINGLE PORT TRANSFORMER MODULE



Ruggedized



- Compliant with IEEE 802.3 standards
- 350µH OCL with 8mA DC bias
- Operating Temperature:
  - 100B-1001 & 100B-1003: -40°C to +85°C
  - 100B-1001X & 100B-1003X: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Dielectric Withstanding Voltage (DWV): 1500 Vrms
- Epoxy Encapsulated package withstands 235°C peak temperature profile
- Lead Finish: Sn63Pb37
- 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 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	1.2	1.2	1.2	1.2	1.2	18	18	14	12	10	48	44	40	38	45	40	30	30
100B-1001X	1.2	1.2	1.2	1.2	1.2	18	18	14	12	10	48	44	40	38	45	40	30	30
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

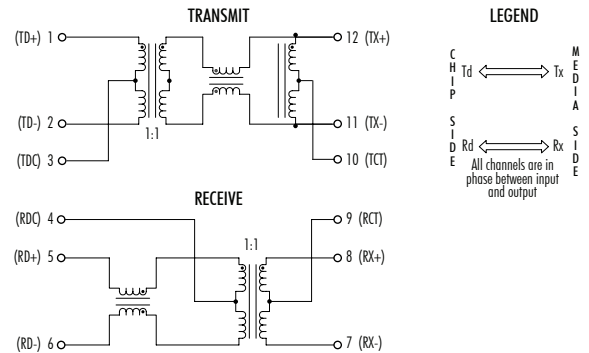
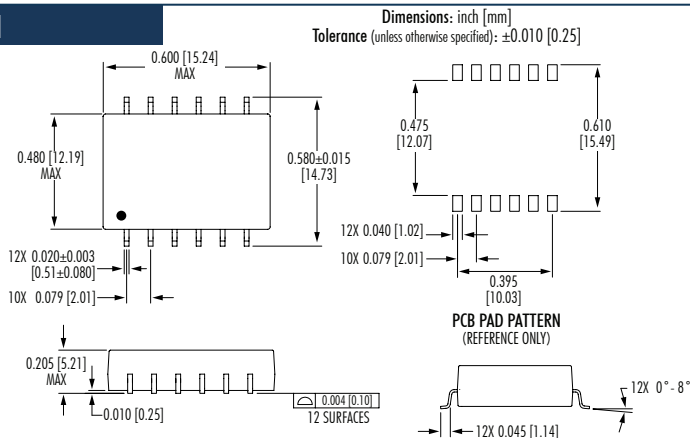
### NOTES:

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

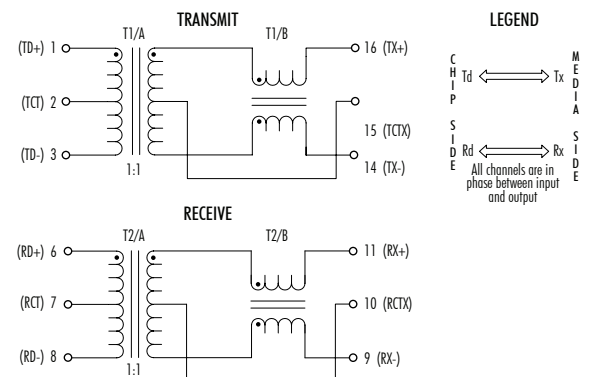
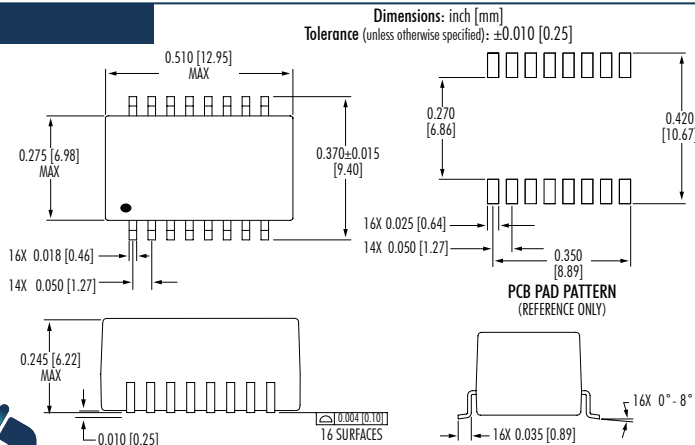
### Mechanicals

### Electrical Schematics

#### 100B-1001



#### 100B-1003



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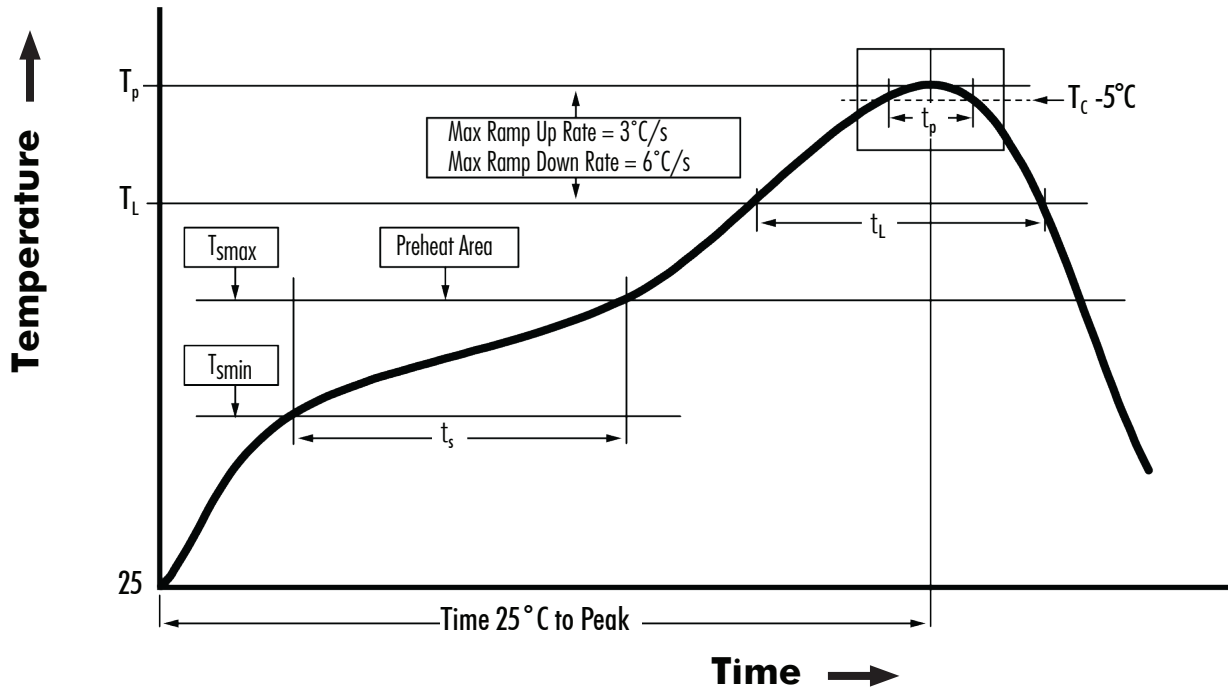
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## Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



$T_{SMIN}$ (°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 number of reflow cycles not to exceed 2.



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