

# 10/100 BASE - TX QUAD-PORT TRANSFORMER MODULE



Ruggedized

- Compliant with IEEE 802.3u & ANSI X3.263 standards
- 350µH OCL with 8mA bias
- Operating Temperature:
  - 100B-4005: -40°C to +85°C
  - 100B-4005X: -55°C to +125°C
- IC grade transfer-molded package withstands 235°C peak temperature profile
- Max Reflow Temperature: 235°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 Ratio (dB MIN)			
	0.10 MHz	30 MHz	60 MHz	100 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-4005	1.0	1.0	1.0	1.0	18	14	12	10	50	44	41	40	40	38	35	35
100B-4005X	1.2	1.2	1.2	1.2	18	14	12	10	48	42	38	33	45	40	35	35

### NOTES:

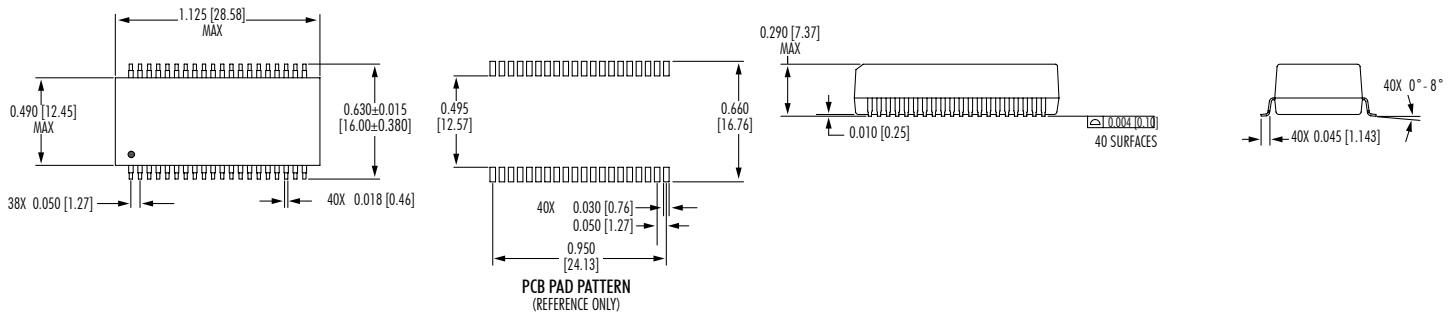
- Add suffix "NL" for RoHS compliant version; i.e. 100B-4005 becomes 100B-4005NL. NL parts have 100% SN Lead Finish (MSL:4)
- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 100B-4005XNLT.

## Mechanicals

Dimensions: inch [mm]

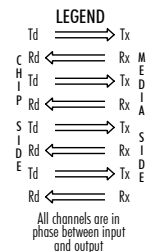
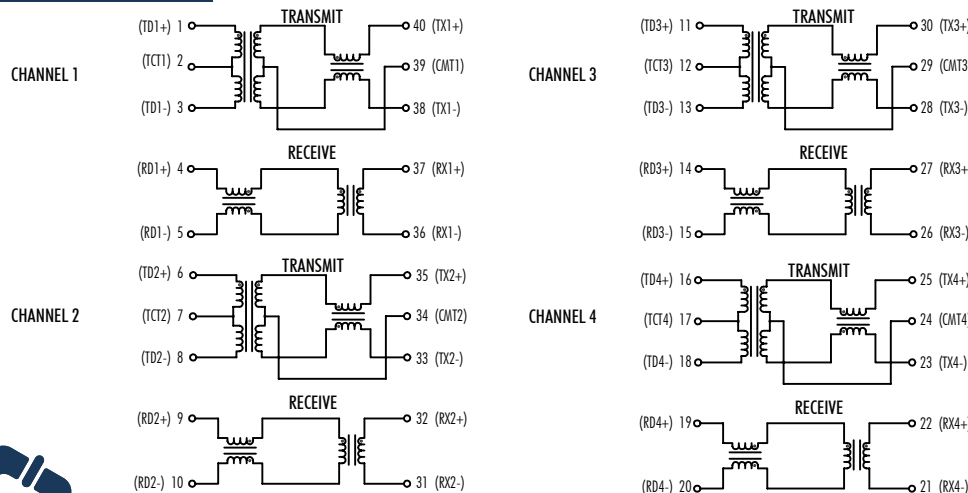
Tolerance (unless otherwise specified): ±0.010 [0.25]

### 100B-4005 / 100B-4005X



## Electrical Schematics

### 100B-4005 / 100B-4005X



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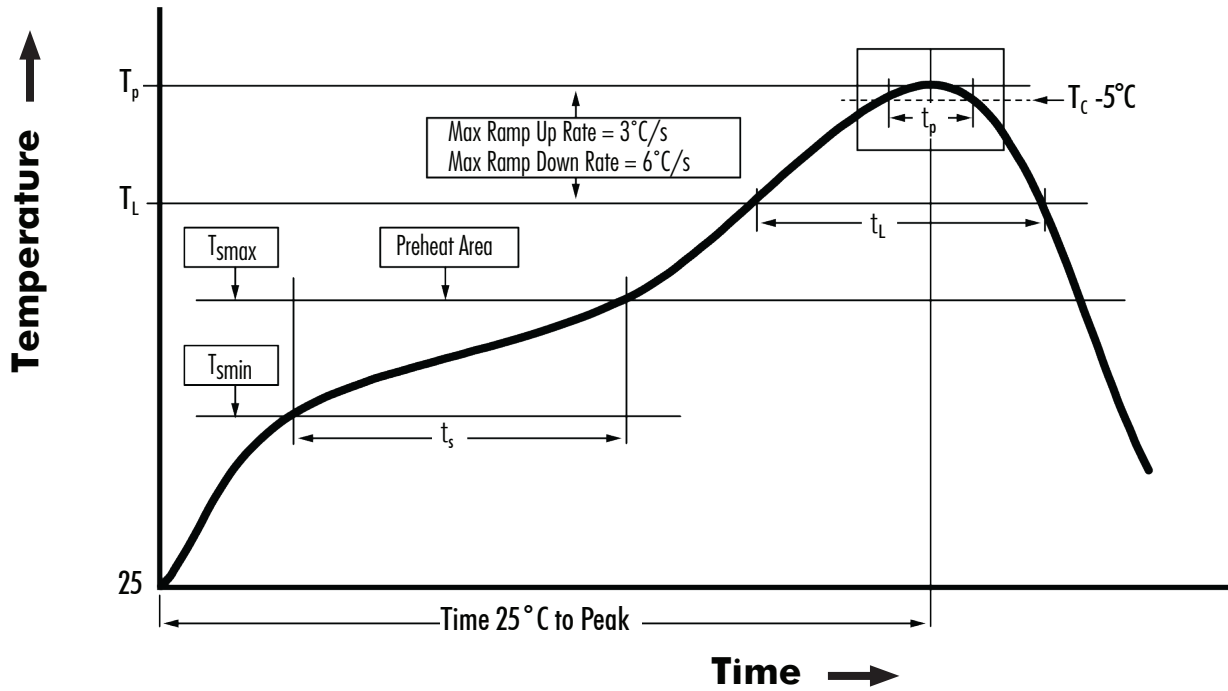
M203.D (08/21)

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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 times of reflow cycle: 2



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