# 10/100BASE - TX SINGLE PORT TRANSFORMER MODULE

Ruggedized



• Compliant with IEEE 802.3 standards

• 350µH OCL with 8mA DC bias

• Operating Temperature: -55°C to +125°C

Lead Finish: Sn63Pb37Moisture Sensitivity Level: 3

Electrical Specifications @ 25°C																						
	Insertion Loss (dB MAX)					Return Loss (dB MIN)					Crosstalk (dB MIN)			DM to CM Rejection (dB MIN)				CM to CM Rejection (dB MIN)				
Part Number	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:

- 1. Add suffix "NL" for RoHS compliant version; i.e. 100B-1001 becomes 100B-1027FXNL. NL parts have 100% SN Lead Finish (MSL:3)
- 2. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 100B-1027FXNLT.

#### **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] 100B-1027FX TRANSMIT 10 (TX+) لللما 0.495±0.015 [12.57±0.380] 0.405 [10.29] 0.530 [13.46] 0.400 [10.16] MAX (TCT) 14 12 (TCMT) $\overline{\mathbf{m}}$ 11 (TX-) (TD-) 15 8888 16X 0.020 [0.51] 16X 0.040 [1.016]-RECEIVE 14X 0.100 [2.54] 14X 0.100 [2.54] 0.700 [17.78] 7 (RX+) (RD+) 1 PCB PAD PATTERN UU. (REFERENCE ONLY) 5 (RCMT) (RD-) 2 c 6 (RX-) 1:1 0.240 [6.05] MAX -16X 0°-8 (RCT) 3 16 SURFACES - 16X 0.040 [1.02] **LEGEND**

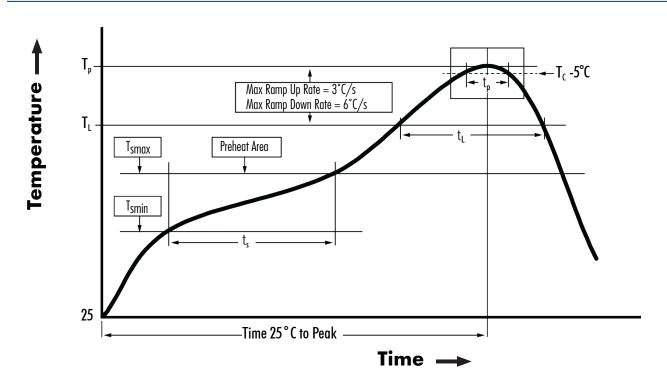


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### Recommended Reflow Profile (Based on J-STD-020D)



T <sub>smin</sub> (°C)	T <sub>smax</sub> (°C)	T <sub>ւ</sub> (°C)	T <sub>p</sub> (°C MAX)	† <sub>s</sub> (s)	t <sub>L</sub> (s)	t <sub>P</sub> (s MAX)	Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	Ramp-down rate (T <sub>P</sub> to T <sub>L</sub> )	Time 25°C to peak temperature (s MAX)				
Tin/Lead Prof	ile												
100	150	183	220	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360				
Non-Lead Pro	Non-Lead Profile												
150	200	217	245	60 - 120	60 - 150	30	3°C/s MAX	6°C/s MAX	480				

### NOTES:

- 1. All temperatures measured on the package leads.
- 2. Maximum number of reflow cycles not to exceed 2.

