## 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 • Storage Temperature: -55°C to +125°C

• Dielectrict 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																		
	Insertion Loss				Return Loss					Crosstalk				DM to CM Rejection Ratio				
	(dB MAX)				(dB MIN)					(dB MIN)				(dB MIN)				
Part	0.10	30	60	80	100	2	30	50	60	80	16	30	60	80	0.10	30	60	100
Number	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
100B-1018X	1.2	1.2	1.2	1.2	1.2	18	18	14	12	10	48	44	40	38	45	40	33	33

### NOTES:

Add suffix "NL" for RoHS compliant version; i.e. 100B-1018X becomes 100B-1018XNL. NL parts have 100% SN Lead Finish (MSL:4)

- 12X 0.035 [0.89]

For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 100B-1018XNLT

12 SURFACES

#### **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] 100B-1018X 0.600 [15.24] MAX TRANSMIT LEGEND (TD+) 1 C O 12 (TX+) H H H H 0.480 [12.19] 0.480 [12.19] 0.580±0.015 [14.73] o 11 (TX-) (TDC) 3 d O 10 (TCT) All channels are in phase between input and output 12X 0.040 [1.02] 8 8 8 RECEIVE 10X 0.079 [2.00] (RDC) 4 o -o 9 (RCT) 12X 0.018 [0.48] 0.395 10X 0.079 [2.00] o 8 (RX+) PCB PAD PATTERN (REFERENCE ONLY) 0.180 [4.57] MAX \_L ∑ 12X 0°-8° (RD-) 6 c **1** € 0.006 [0.15]

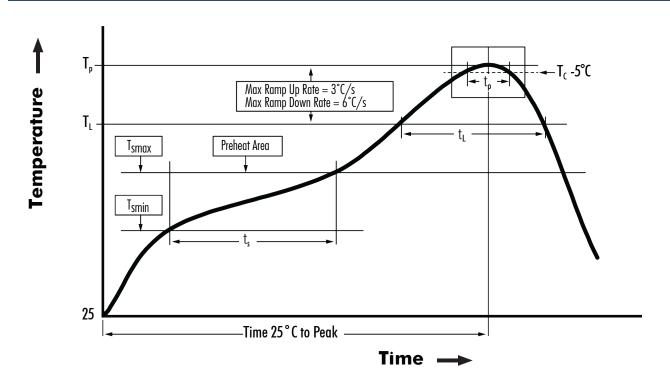


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### Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



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)	† <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)
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.

