## 1000BASE-T TRANSFORMER MODULE

Industrial Grade



- Compliant with IEEE 802.3 standards
- 350µH OCL with 8mA D.C.bias at 100KHz, 100mV
- Operating Temperature: -40°C to +85°C
- Storage Temperature: -55°C to +125°C
- Dielectrict Withstanding Voltage (DWV): 1500 Vrms
- Lead Finish: Sn100
- Moisture Sensitivity Level: 1

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	100	30	50	60	80	100	30	60	100	30	60	100
Number	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz	MHz
R5012NL	1.2	1.2	1.2	1.2	18	13	12	10	8	43	37	33	43	37	30

#### NOTES:

1. For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. R5012NLT

#### **Electrical Schematics** Mechanicals Dimensions: inch [mm] Tolerance (unless otherwise specified): ±0.010 [0.25] R5012NL - 0.528 [13.41] - MAX **CHANNEL 1 LEGEND** (I(II) 1 C -O 24 (MCT1) 000000000000 AAAAAAAAAAA O 23 (MX1+) (TD1+) 2 C 0.605 0.735 [18.67] [15.37] MAX O 22 (MX1-) (TD1-) 3 O All channels are in phase between input and output **CHANNEL 2** 10000000000 O 21 (MCT2) (TCT2) 4 C 98888888888 24X 0.025 [0.64] 24X 0.015 [0.38] 11X 0.039 [1.00]\_ 11X 0.039 [1.00] O 20 (MX2+) (TD2+) 5 **←**-0.429 [11.00] **─**0.429 [11.00] SUGGESTED PAD LAYOUT O 19 (MX2-) (REFERENCE ONLY) (TD2-) 6 C 0.251 [6.38] MAX **CHANNEL 3** (TCT3) 7 O O 18 (MCT3) ₹24X 0° 0.004 [0.10] 24 SURFACES O 17 (MX3+) (TD3+) 8 24X 0.035 [0.89] O 16 (MX3-) (TD3-) 9 O **CHANNEL 4** -O 15 (MCT4) (TCT4) 10 C O 14 (MX4+) (TD4+) 11 O 13 (MX4-) (TD4-) 12 O

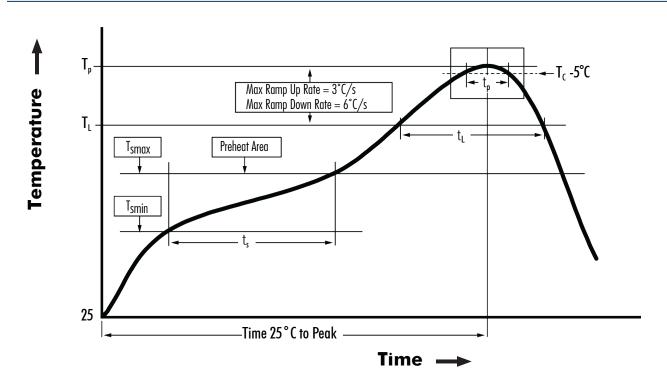


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## Non-Lead Recommended Reflow Profile (Based on J-STD-020D)



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)	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)
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.

