

10/100 BASE-T SINGLE PORT
TRANSFORMER MODULE

Industrial Grade

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

Electrical Specifications @ 25°C																	
Part Number	Insertion Loss (dB MAX)				Return Loss (dB MIN)				Crosstalk (dB MIN)			Common Mode Rejection Ratio (dB MIN)			DM to CM Rejection Ratio (dB MIN)		
	0.10 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	80 MHz	1000 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
R5001NL	1.2	1.2	1.2	1.2	18	12	10	8	43	37	32	40	35	30	43	37	30

NOTES:

- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. R5001NLT.
- Country of Origin: China

R5001NL

Mechanicals

Electrical Schematics

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

SUGGESTED PAD LAYOUT (REFERENCE ONLY)

CHANNEL 1
(TCT1) 1 ○
(TD1+) 2 ○
(TD1-) 3 ○
1:1
○ 24 (MCT1)
○ 23 (MX1+)
○ 22 (MX1-)

CHANNEL 2
(TCT2) 4 ○
(TD2+) 5 ○
(TD2-) 6 ○
1:1
○ 21 (MCT2)
○ 20 (MX2+)
○ 19 (MX2-)

CHANNEL 3
(TCT3) 7 ○
(TD3+) 8 ○
(TD3-) 9 ○
1:1
○ 18 (MCT3)
○ 17 (MX3+)
○ 16 (MX3-)

CHANNEL 4
(TCT4) 10 ○
(TD4+) 11 ○
(TD4-) 12 ○
1:1
○ 15 (MCT4)
○ 14 (MX4+)
○ 13 (MX4-)

LEGEND

C H I P S D E Td ↔ Mx M E D I A S I D E

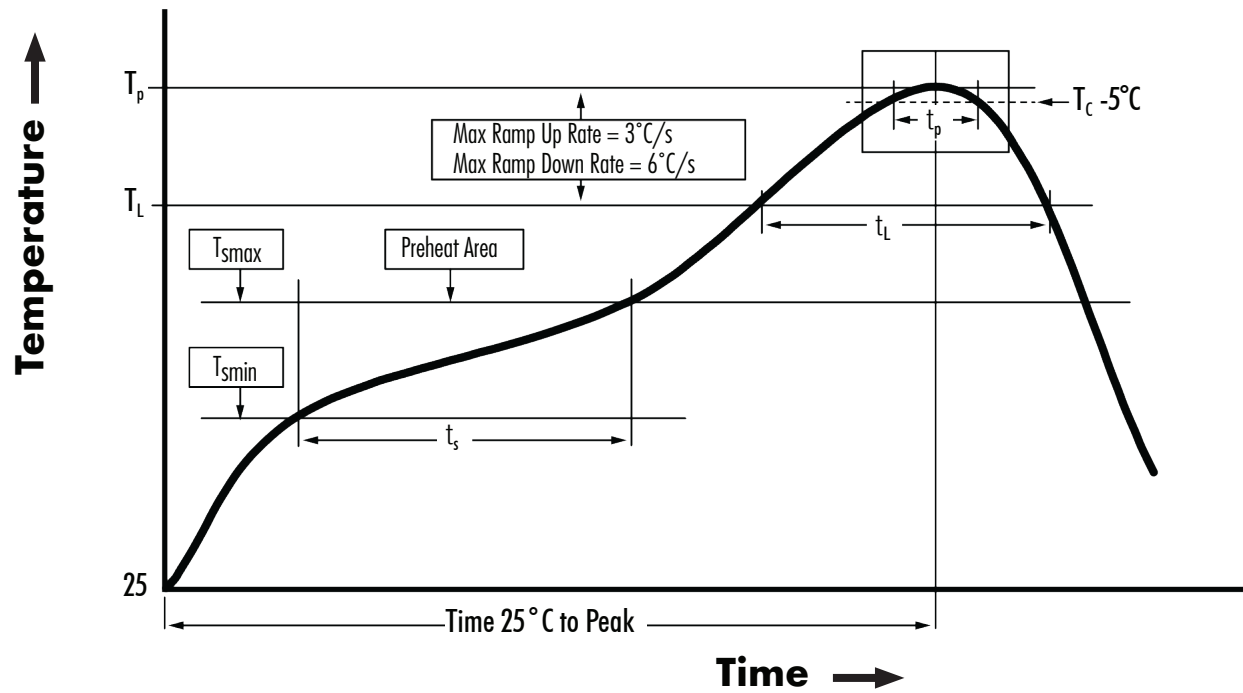
All channels are in phase between input and output



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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)
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.



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