

1000 BASE-T SINGLE PORT TRANSFORMER MODULE

Ruggedized

- Compliant with IEEE 802.3 standards
- 350 μ H OCL with 8mA bias, at extended temperatures
- Operating Temperature:
 - 1000B-5027: -40°C to +85°C
 - 1000B-5027X/FX: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Dielectric Withstanding Voltage (DWV): 1500 Vrms
- Low Profile Epoxy encapsulated package
- Lead Finish: Sn63Pb37
- Moisture Sensitivity Level: 3

Electrical Specifications @ 25°C

Part Number	Insertion Loss (dB MAX)				Return Loss (dB MIN)					Crosstalk (dB MIN)			CM to CM Rejection Ratio (dB MIN)			DM to CM Rejection Ratio (dB MIN)		
	0.10 MHz	30 MHz	60 MHz	100 MHz	5 MHz	30 MHz	60 MHz	80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
1000B-5027	1.5	1.5	1.5	1.5	18	18	12	10	8	43	37	33	40	35	30	40	35	30
1000B-5027X	1.5	1.5	1.5	1.5	18	18	12	10	8	43	37	33	40	35	30	40	35	30
1000B-5027FX	1.5	1.5	1.5	1.5	18	18	12	10	8	43	37	33	40	35	30	40	35	30

NOTES:

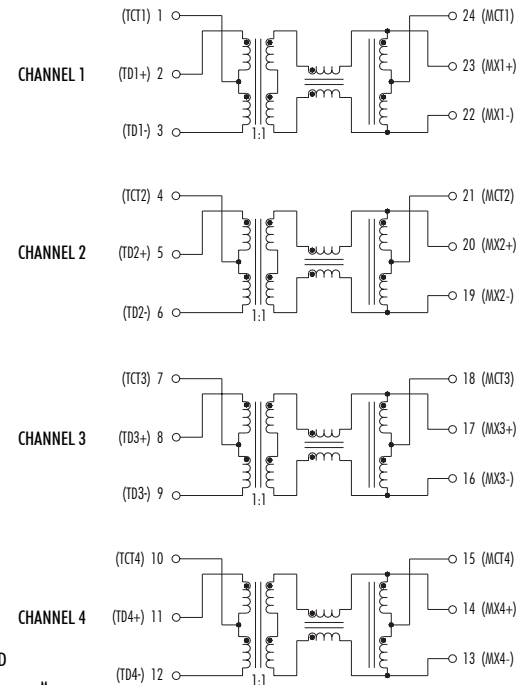
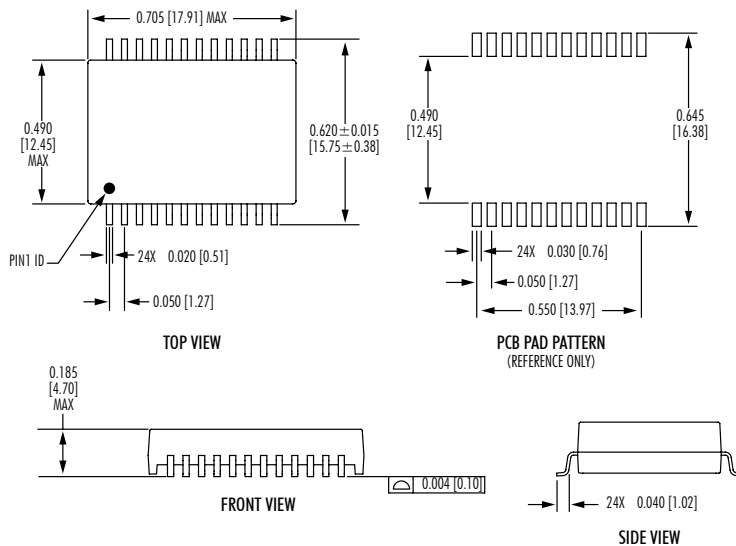
- Add suffix "NL" for RoHS compliant version; i.e. 1000B-5027 becomes 1000B-5027NL. NL parts have 100% SN Lead Finish.
- For Tape & Reel packaging, add "T" suffix at the end of the part number: i.e. 1000B-5027T.

Mechanicals

Electrical Schematics

1000B-5027(X)(FX)

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



LEGEND

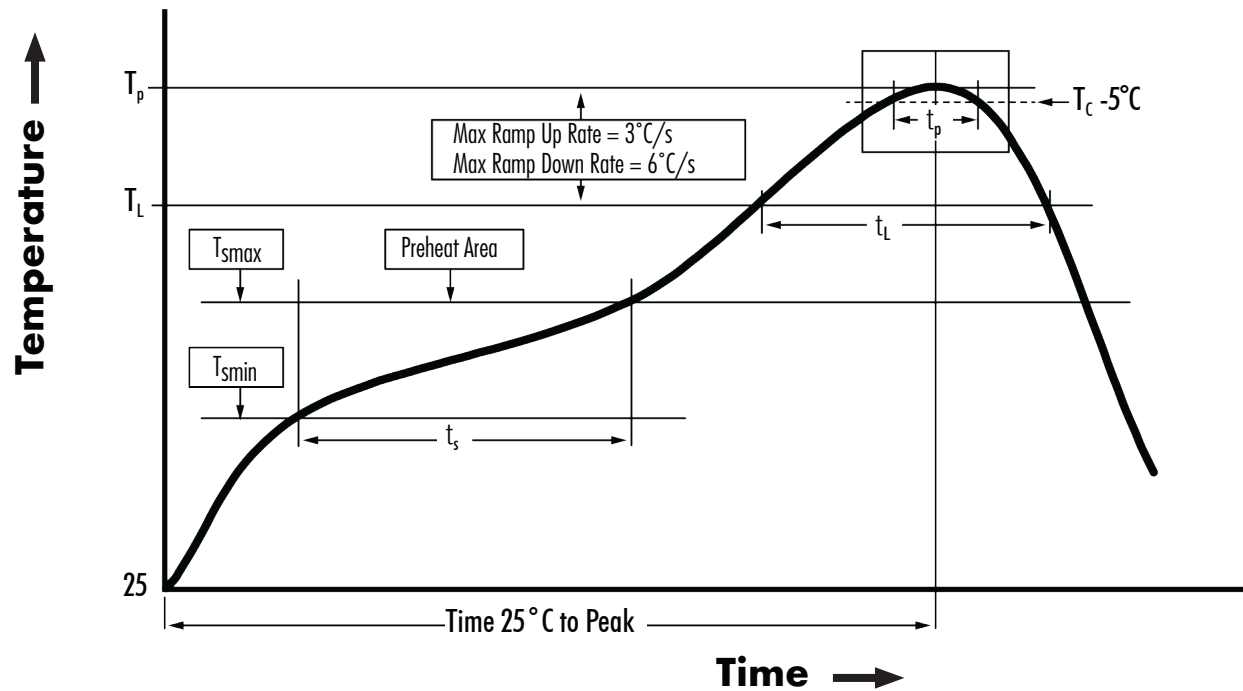
C
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All channels are in phase between input and output



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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)
Tin/Lead Profile									
100	150	183	220	60 - 120	60 - 150	20	3°C/s MAX	6°C/s MAX	360
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.
- 3. Reflow cycle applies only to surface mount parts.



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