

10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

Ruggedized



- ⊗ Compliant with IEEE 802.ab for 1000Base-T
- ⊗ 350μH OCL with 8mA bias at extended temperatures
- ⊗ Two Operating Temperature Versions Available:
 - Standard: -40°C to +85°C
 - Extended: -55°C to +125°C
- ⊗ 235°C peak reflow temperature (MSL 3)
- ⊗ Lead finish: Sn63/Pb37 (RoHS-compliant version available with 100% pure tin)
- ⊗ 245°C peak reflow temperature for RoHS versions (MSL 4)

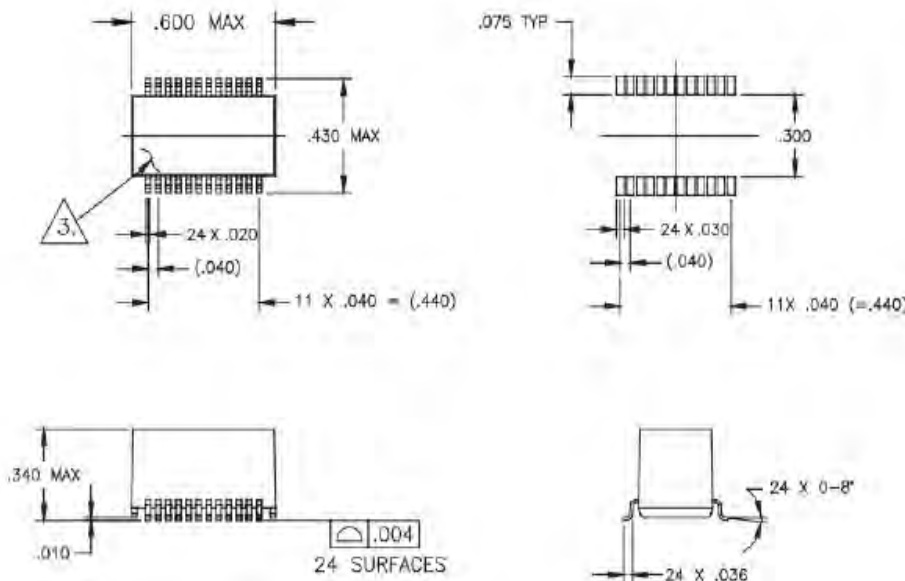
Part Number ^{1,2}	Insertion Loss (dB Min)	Return Loss (dB Max)				Crosstalk (dB Max)			CM to CM Rejection Ratio (dB Max)			DM to CM Rejection Ratio (dB Max)			Hipot (Vrms)
		0.1-100 Mhz	30 Mhz	60 Mhz	80 Mhz	100 Mhz	30 Mhz	60 Mhz	100 Mhz	30 Mhz	60 Mhz	100 Mhz	30 Mhz	60 Mhz	
1000B-5009	-1.2	-18	-12	-12	-10	-43	-37	-31	-30	-25	-18	-40	-35	-30	1500
1000B-5012	-1	-18	-12	-12	-10	-43	-37	-33	-43	-37	-33	-43	-37	-33	1500
1000B-5014	-1.4	-16	-12	-12	-10	-43	-37	-33	-45	-40	-35	-43	-37	-33	1500
1000B-5016*	-1.2	-18	-12	-12	-10	-43	-37	-31	-30	-23	-17	-40	-35	-30	1500

Note: 1. Add suffix X for extended temperature version; i.e. 1000B-5009F becomes 1000B-5009X. (*1000B-5016 does not offer X-Version)
 2. Add suffix NL for RoHS compliant part; i.e. 1000B-5012 becomes 1000B-5012NL.

3. For Tape & Reel Packaging, add "T" suffix at the end of the part number; i.e. 1000B-5014T
 4. Storage Temperatures: -55°C to +125°C

Mechanicals

1000B-5009/X



Weight 0.75 grams
 Tape and Reel 250/reel
 Tube 15/tube

Dimensions: Inches
 mm
 Unless otherwise specified,
 all tolerances are ± .010
 .025

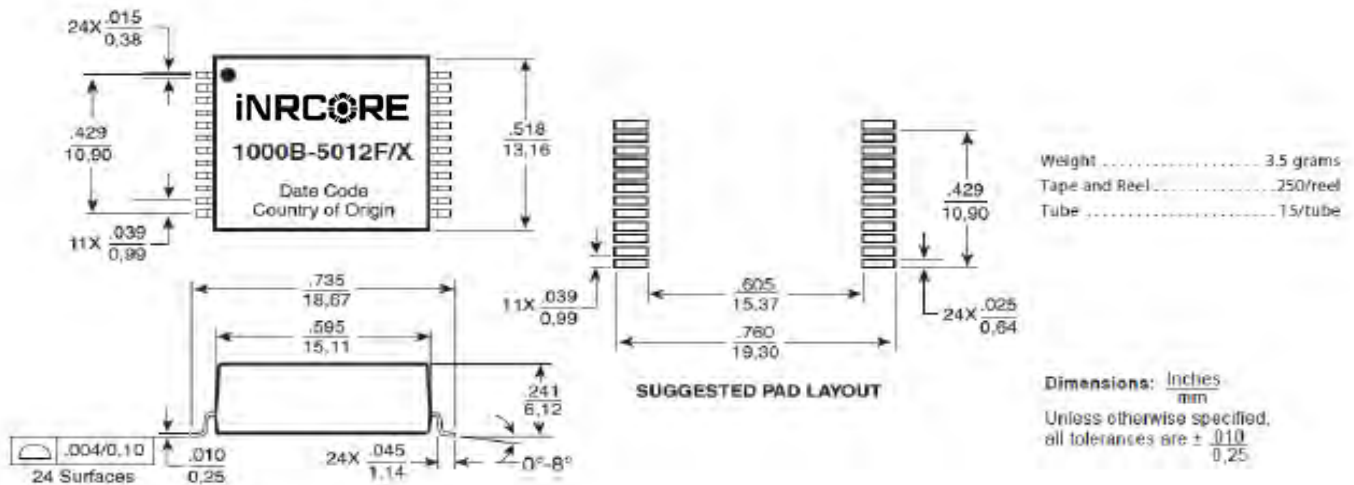


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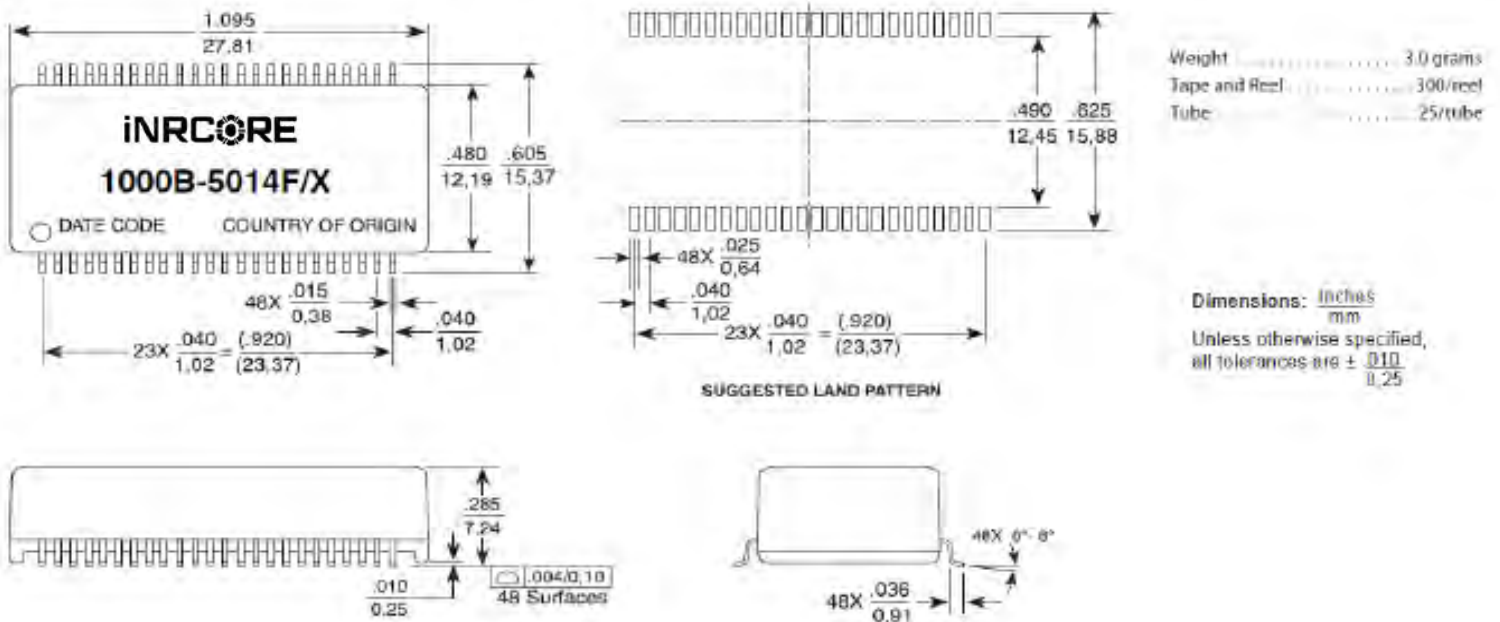
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1000B-5012/X



1000B-5014/X

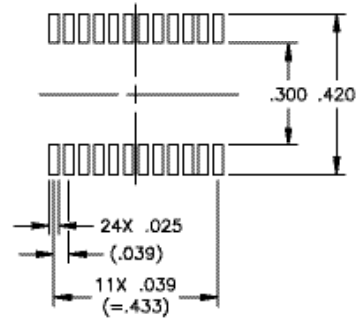
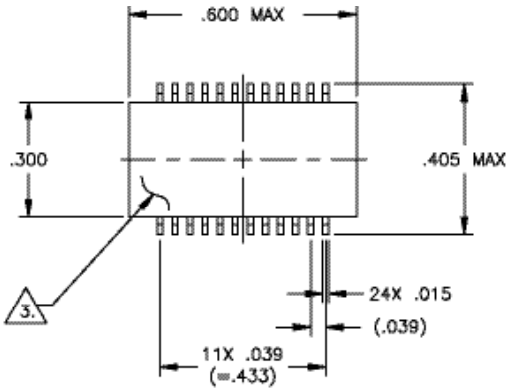


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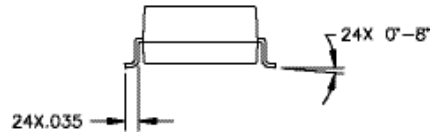
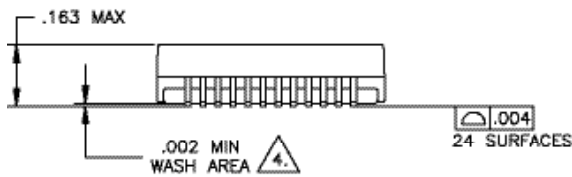
1000B-5016



SUGGESTED LAND PATTERN

Weight 0.75 grams
 Tape and Reel700/reel
 Tube 30/tube

Dimensions: Inches
 mm
 Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0.25}$



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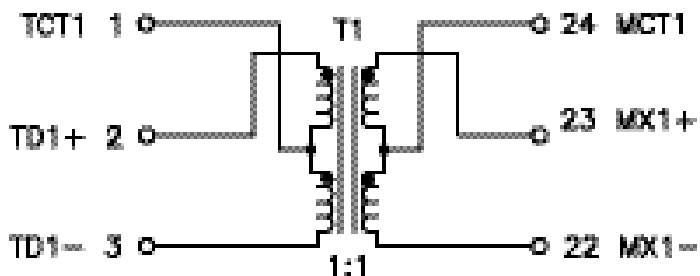
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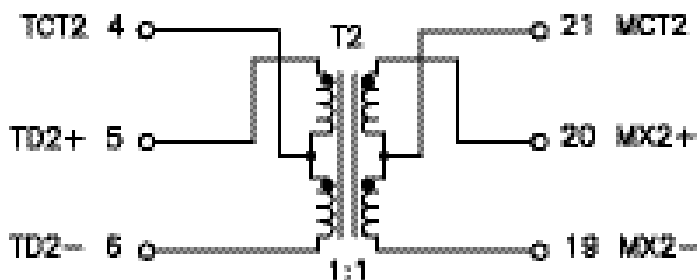
Electrical Schematics

1000B-5009/X

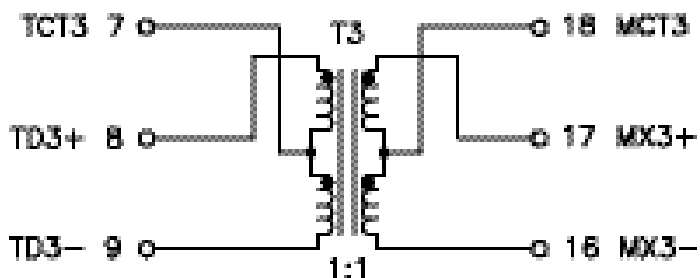
CHANNEL 1



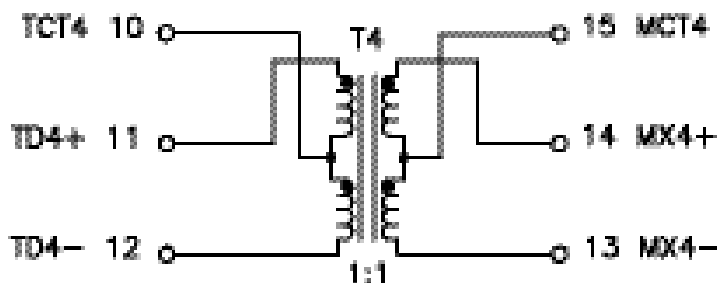
CHANNEL 2



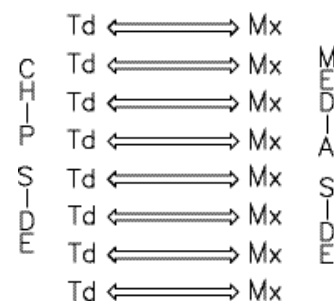
CHANNEL 3



CHANNEL 4



LEGEND



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

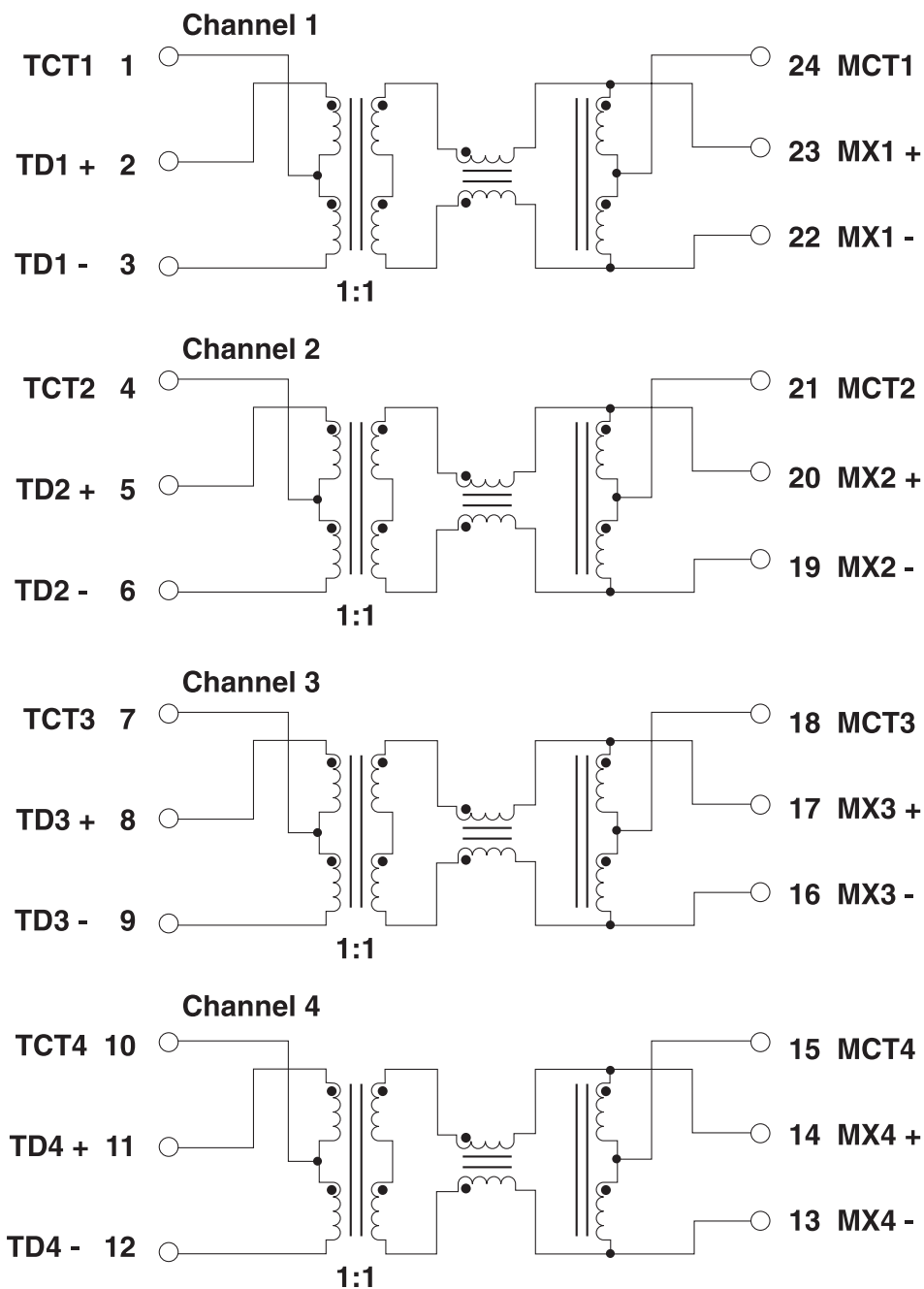


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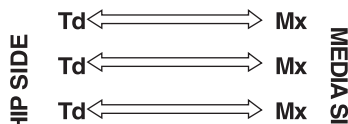
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1000B-5012/X



LEGEND

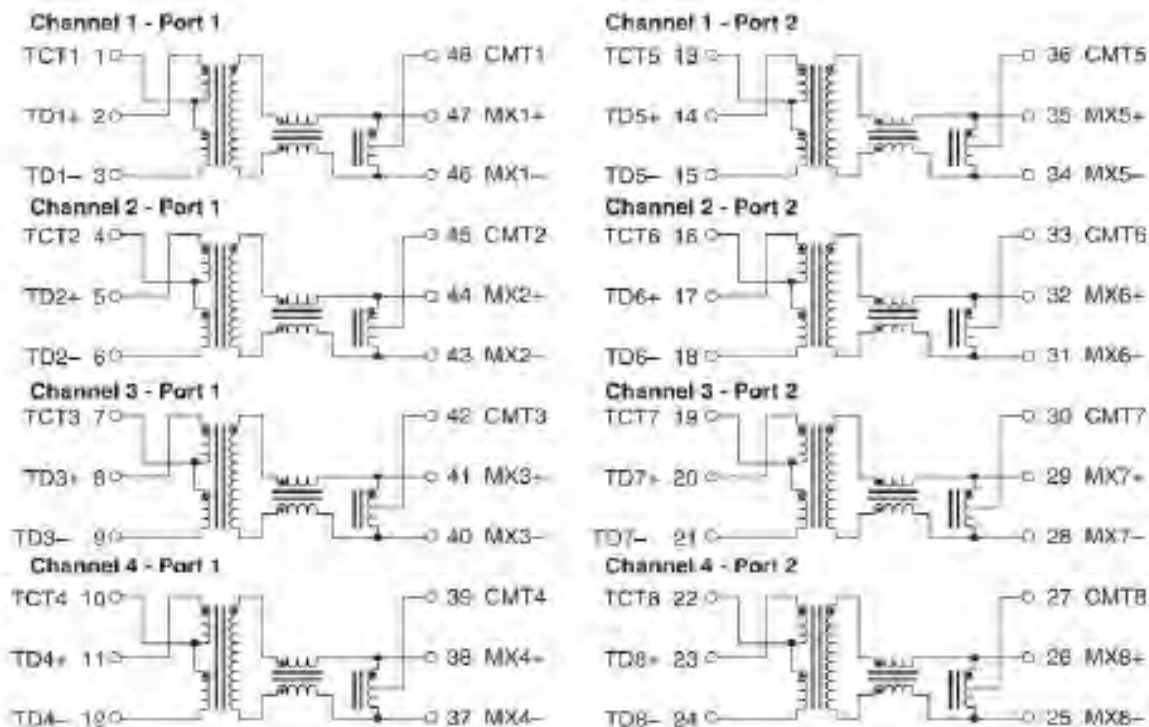


10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

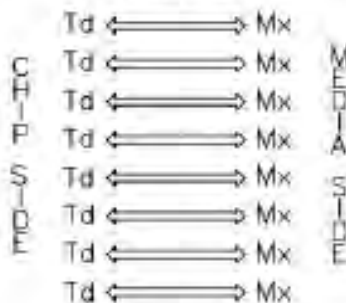
Ruggedized



1000B-5014/X



LEGEND



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

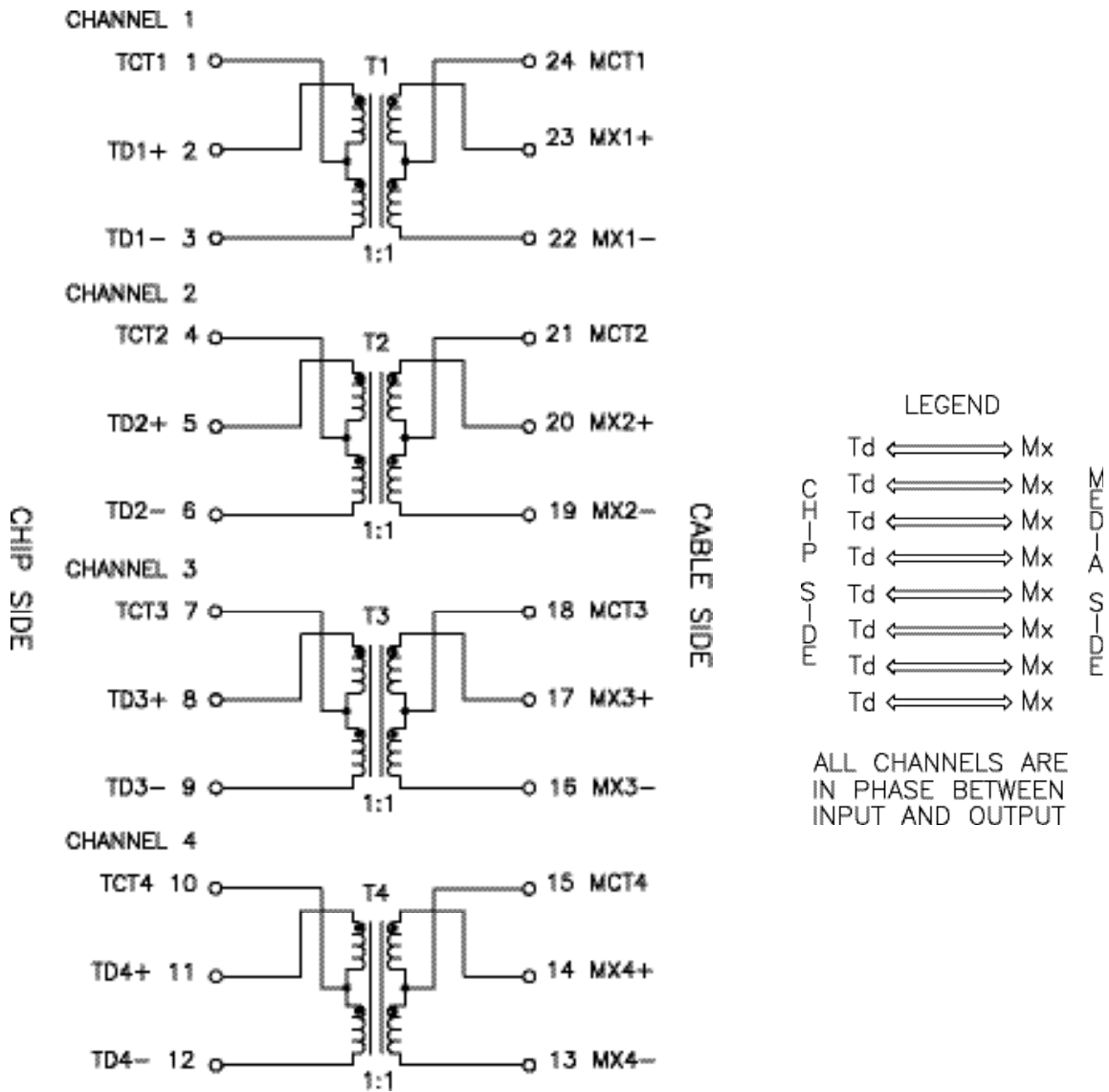


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1000B-5016

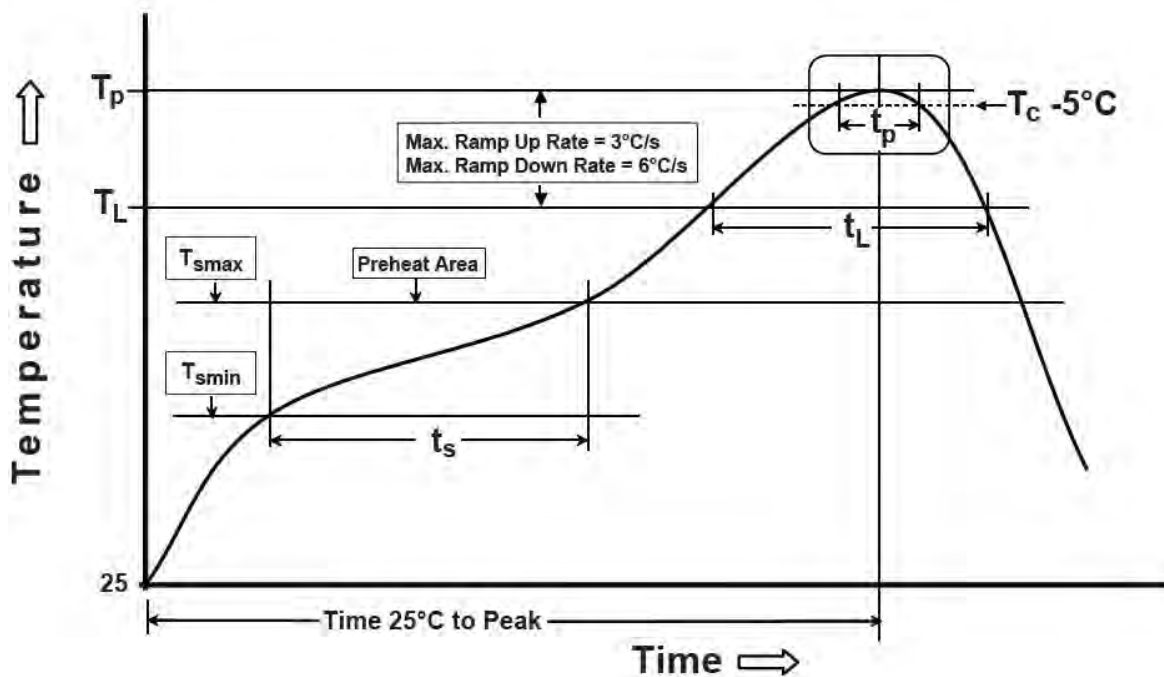


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Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



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)
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 times of reflow cycle: 2.

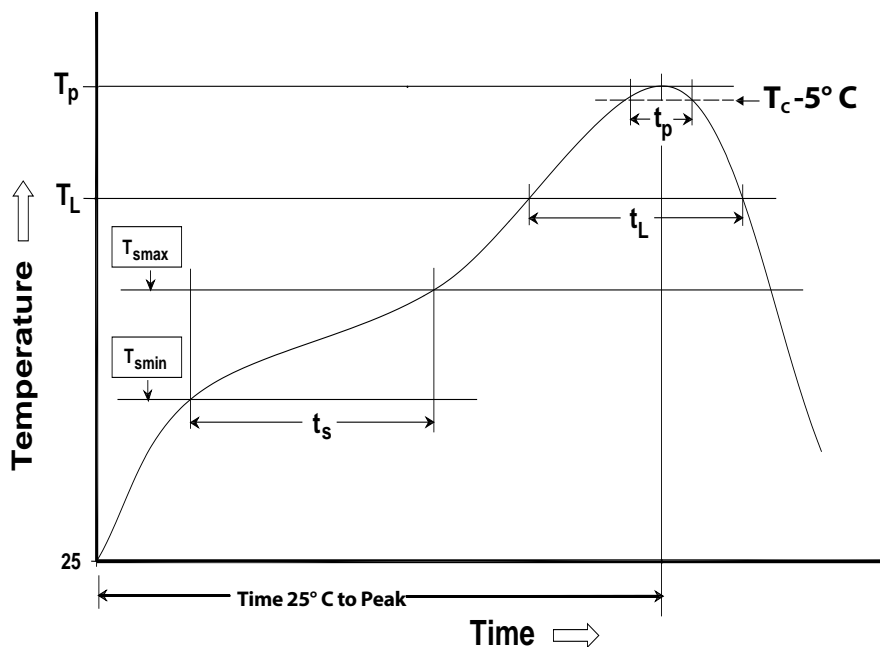


10/100/1000BASE-T SINGLE & DUAL-PORT TRANSFORMER MODULES

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Non-Lead 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)
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 times of reflow cycle: 2.

For More Information

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