

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

Ruggedized



- ⊗ Compliant with IEEE 802.3ab for 1000Base-T
- ⊗ 350μH OCL with 8mA bias at extended temperatures
- ⊗ Storage temperature: -55°C to +125°C
- ⊗ Operating temperature:
 - 1000B-5001F/5002F/5003F: -40°C to +85°C
 - 1000B-5001FX/5002FX/5003FX: -55°C to +125°C
- ⊗ IC grade transfer-molded package withstands 235°C peak temperature profile
- ⊗ Moisture Sensitivity Level: 3

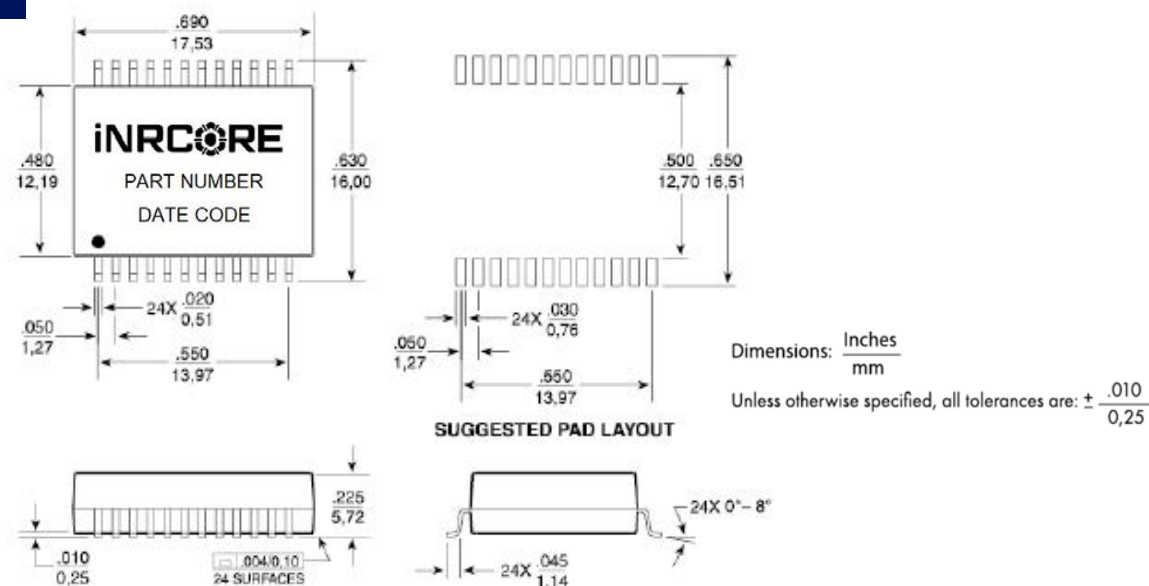
Electrical Specifications @ 25°C

Part Number 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 MIN)
		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-5001F	-1.20	-18	-12	-10	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5001FX	-1.40	-18	-12	-10	-8	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5002F	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5002FX	-1.20	-18	-14	-12	-10	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5003F	-1.20	-18	-14	-11	-9	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500
1000B-5003FX	-1.20	-18	-14	-11	-9	-43	-37	-33	-40	-35	-30	-43	-37	-33	1500

Note: 1. Add suffix NL for RoHS compliant part; i.e. 1000B-5001F becomes **1000B-5001FNL**.
 2. For Tape and Reel Packaging, add "T" suffix at the end of the part number; i.e. **1000B-5001FXT**.
 3. Add suffix X for extended temperature version (i.e. 1000B-5009F) becomes **1000B-5001FX**.

Mechanical

1000B-5003F/X



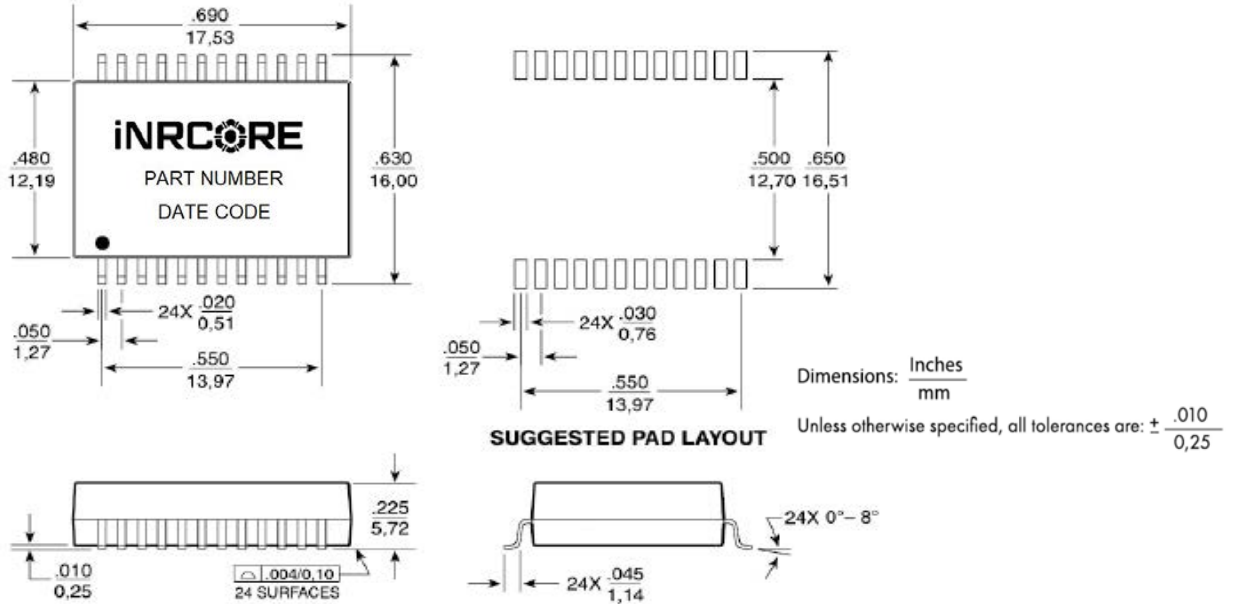
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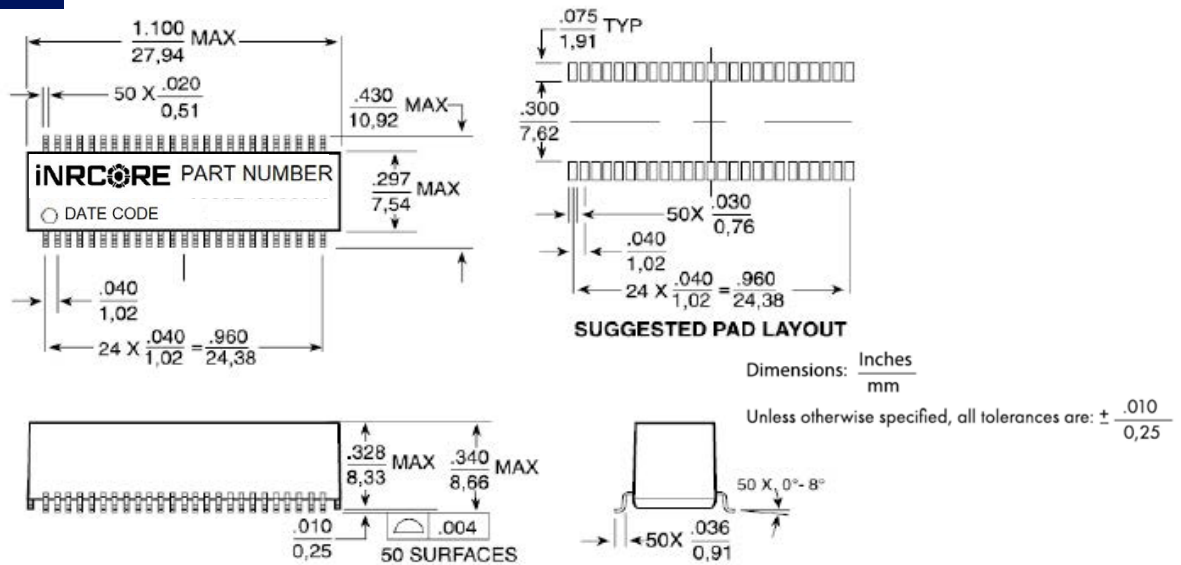
Mechanical

1000B-5003F/X



Mechanical

1000B-5003F/X



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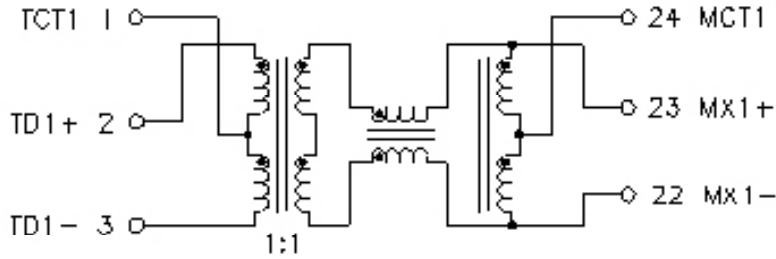
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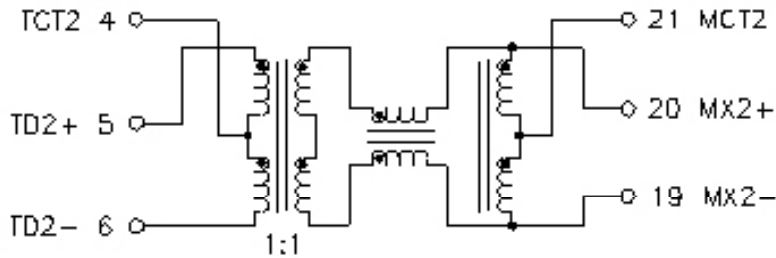
Electrical Schematics

1000B-5003F/X

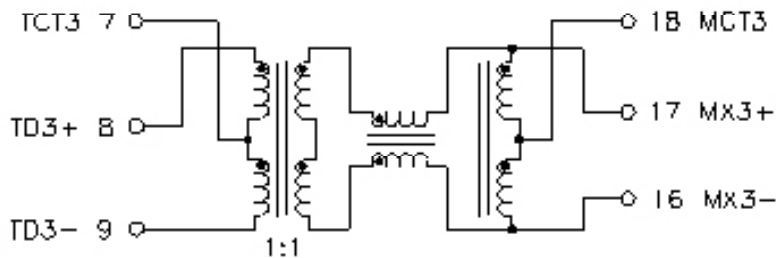
CHANNEL 1



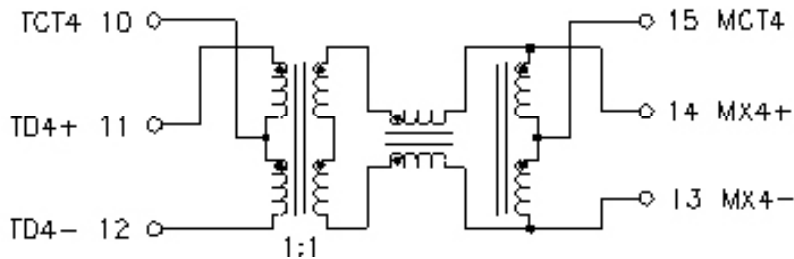
CHANNEL 2



CHANNEL 3



CHANNEL 4



ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT



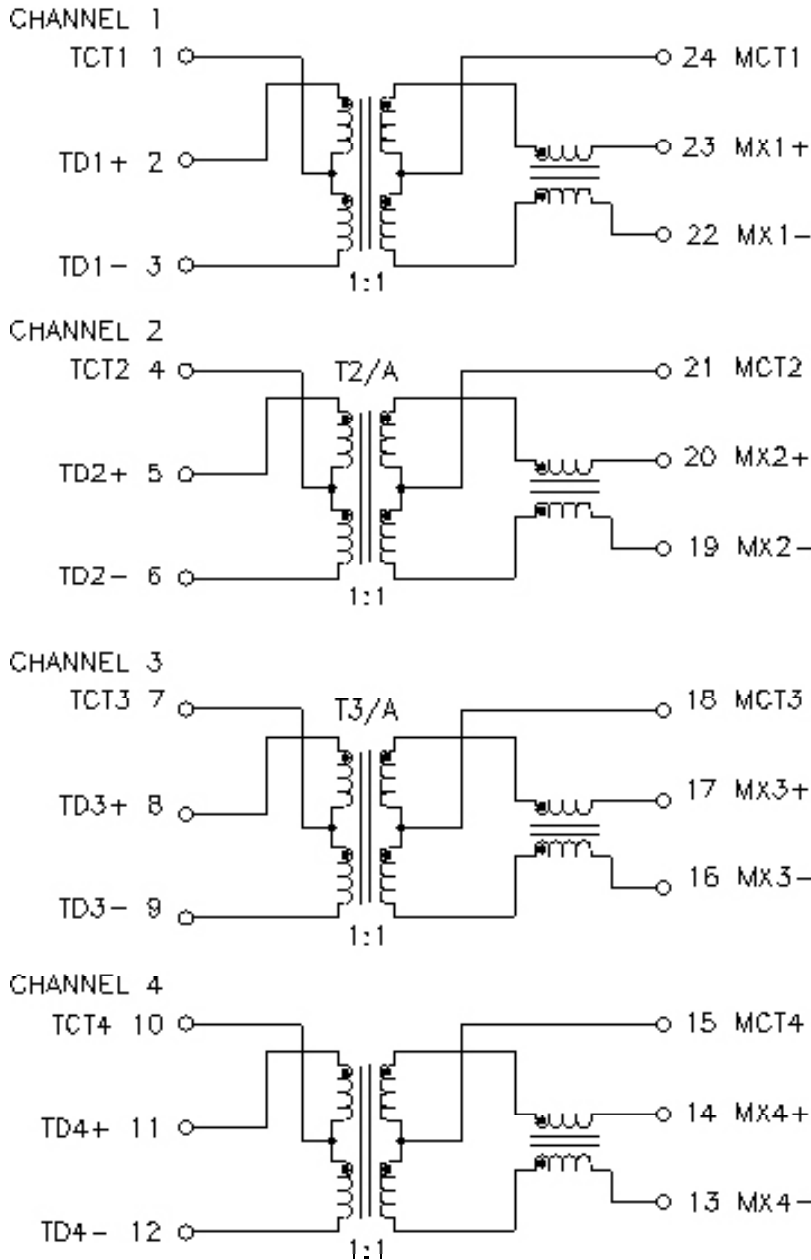
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Electrical Schematics

1000B-5003F/X



LEGEND

M-D-I-S-I-O-M
M-D-I-S-I-O-M

P-I-C
P-I-C

T_d
M_x

T_d
M_x

T_d
M_x

T_d
M_x

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT



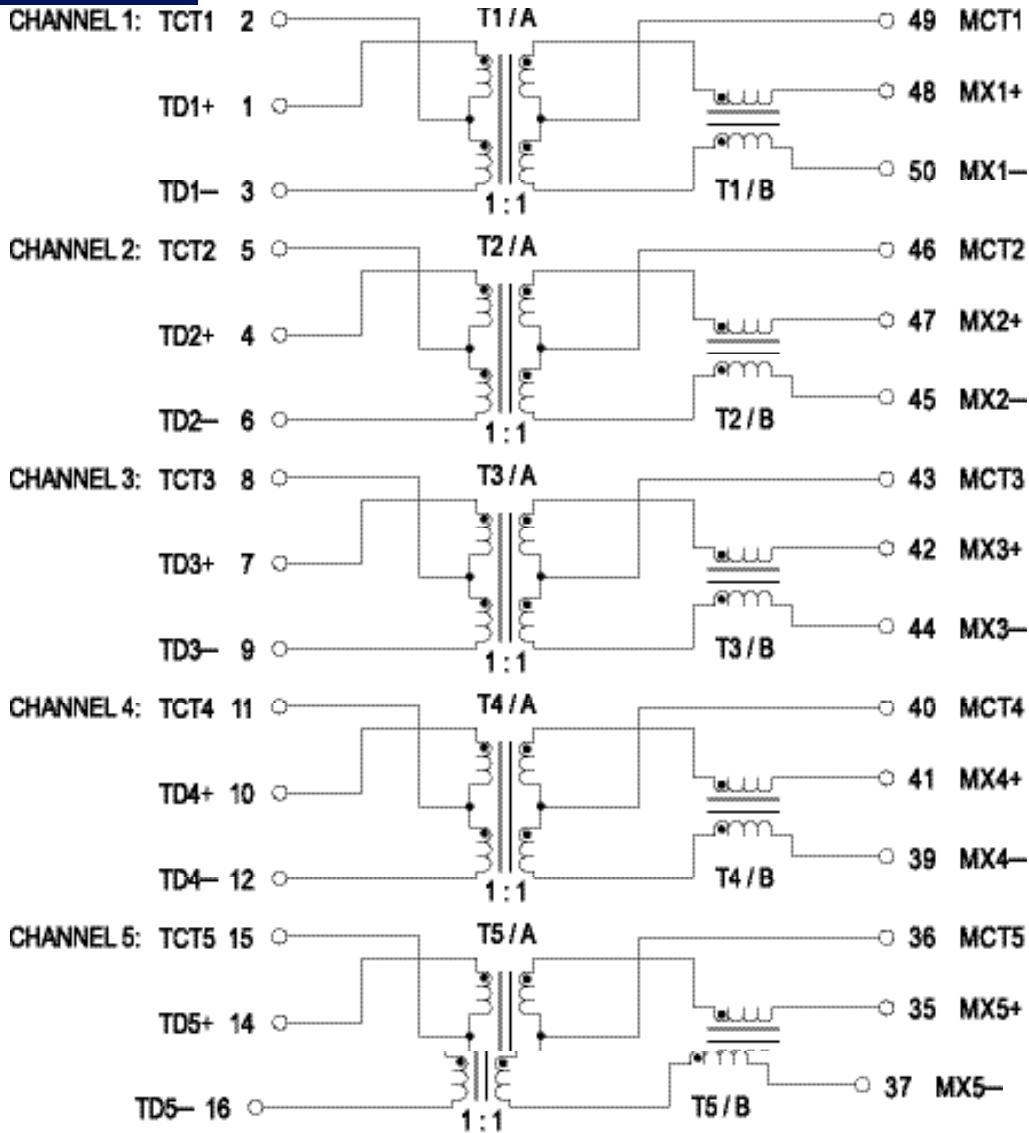
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Electrical Schematics

1000B-5003F/X



LEGEND

ALL CHANNELS ARE IN PHASE BETWEEN INPUT AND OUTPUT

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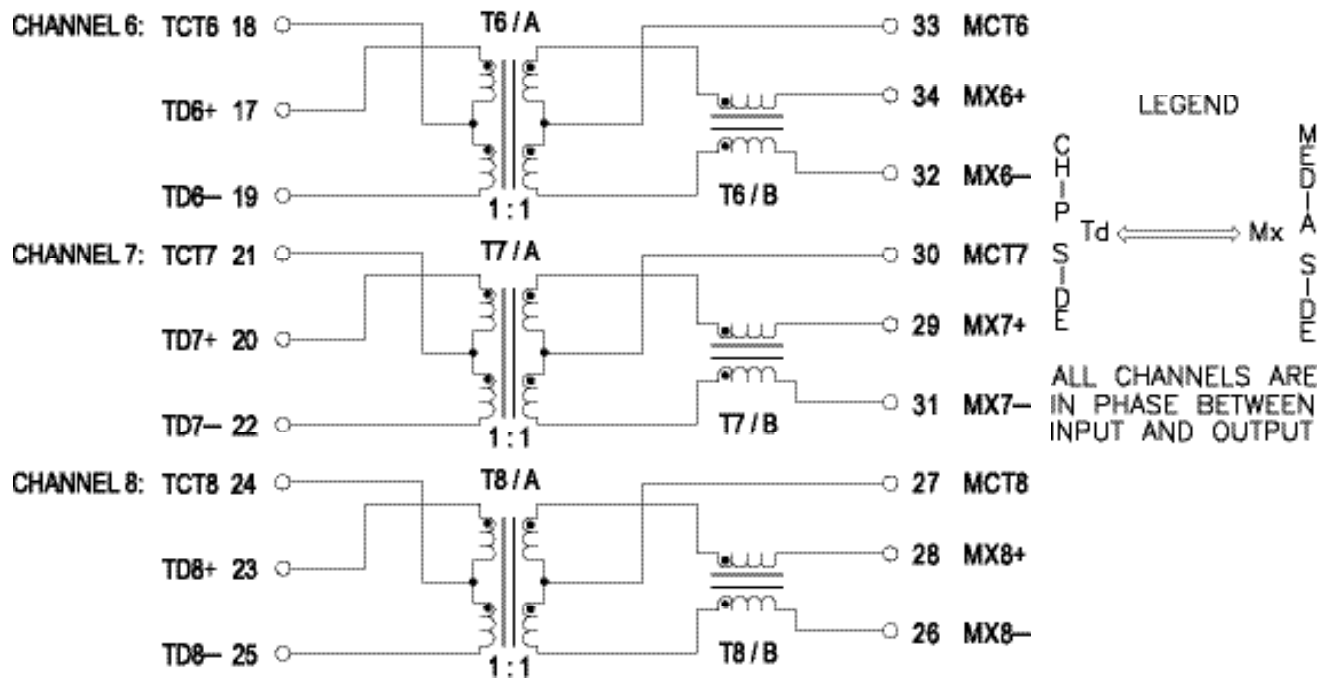
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Electrical Schematics

1000B-5003F/X(cont.)

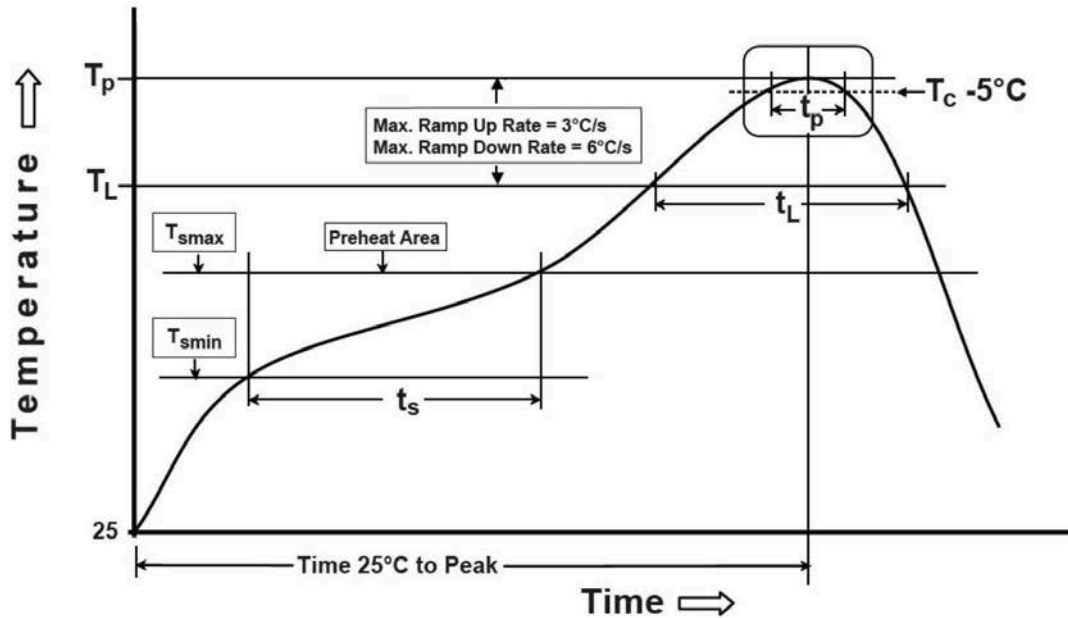


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Tin/Lead Recommended Reflow Profile (Based on J-STD-020D)



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.

For More Information

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