

# 10/100BASE-T SINGLE PORT TRANSFORMER MODULES

Industrial grade



- Compliant with IEEE 802.3 standards
- 350pH OCL with 8mA DC bias at 100KHz 100mV
- Lead finish: Pure tin
- Moisture Sensitivity Level: 1

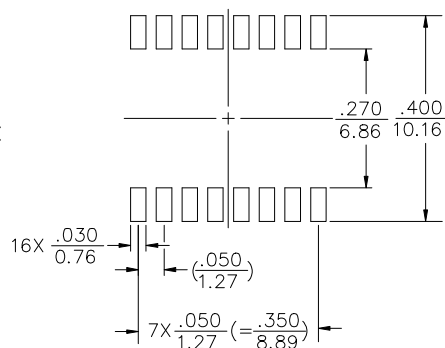
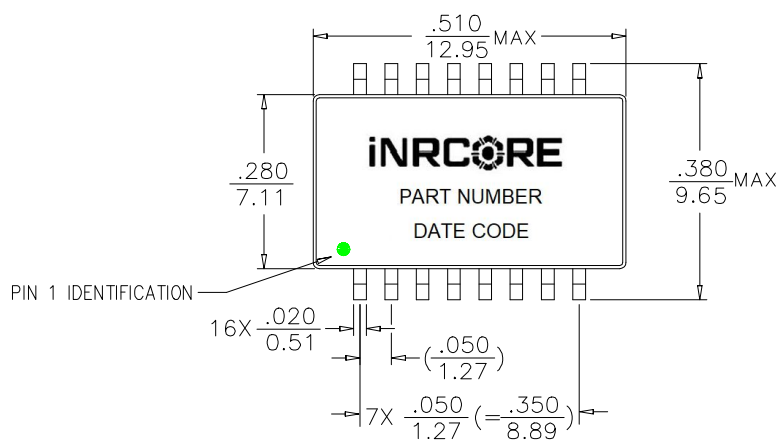
## Electrical Specifications @ 25 °C – Operating Temperature – 40 °C to +85 °C

Part Number	Insertion Loss (dB MAX)	Return Loss (dB MIN)					Crosstalk (dB MIN)				Differential to Common Mode Rejection (dB MIN)			Dielectric Withstanding Voltage @60s (Vrms MIN)
	0.1-100 MHz	5 MHz	30 MHz	50 MHz	60 MHz	80 MHz	1 MHz	30 MHz	60 MHz	80 MHz	30 MHz	60 MHz	100 MHz	
R1003NL	-1.0	-18	-16	-12	-11	-10	-62	-45	-40	-35	-42	-37	-32	1500

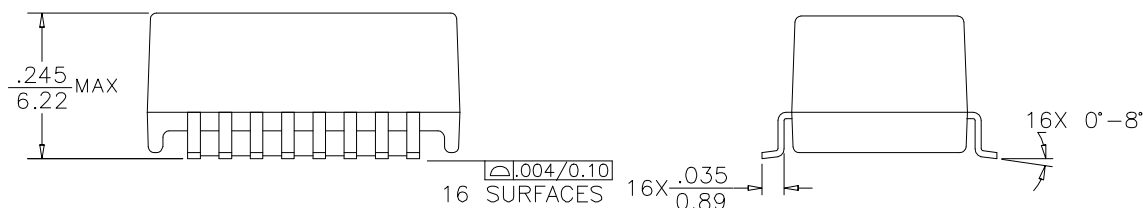
Notes: For Tape & Reel Packaging, add "T" suffix at the end of the part number; i.e. **R1003NLT**.

## Mechanical

R1003NL



SUGGESTED PCB LAYOUT



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

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



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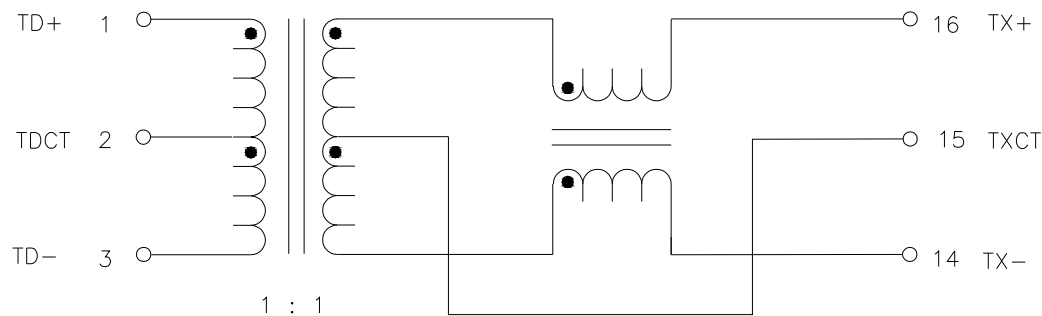
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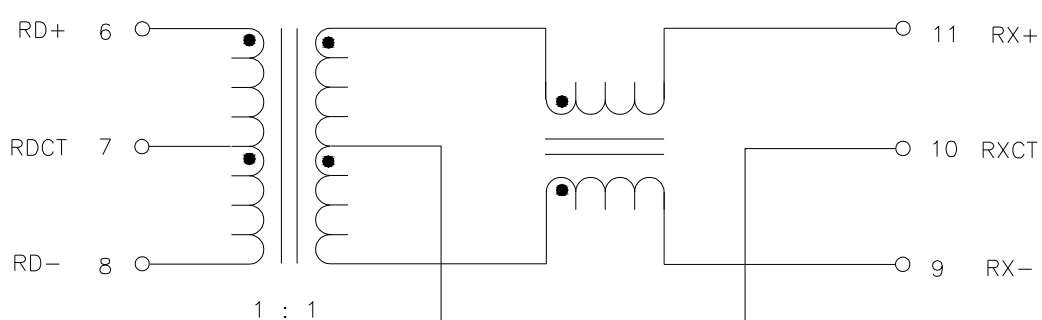
Electrical Schematic

R1003NL

TRANSMIT



RECEIVE



SCHEMATIC

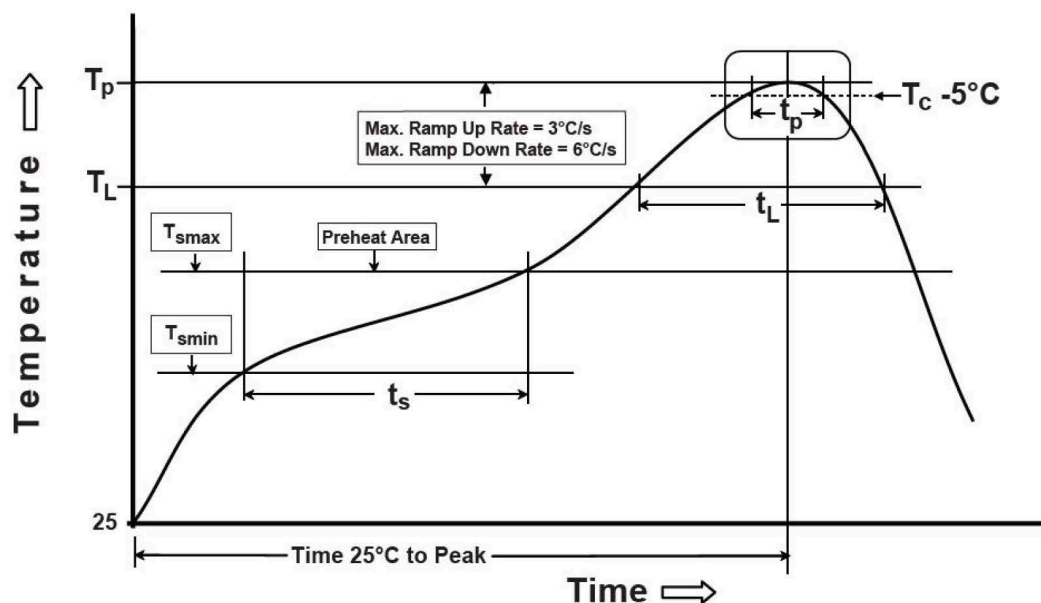


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## Non-Lead Recommended Reflow Profile (Based on J-STD-020D)



$T_{SMIN}$ (°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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