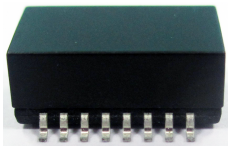
10/100 Base-T Single Port LAN Transformer for Auto MDI/MDIX Extended Temperature

ALAN-134

RoHS Compliant



12.70 x 9.40 x 5.40 mm

FEATURES:

- Meet IEEE802.3 specification
- Extended Temperature (-40°C - +85°C)
- ROHS peak reflow temperature rating 240°C
- 1500Vrms Hi-Pot

APPLICATIONS:

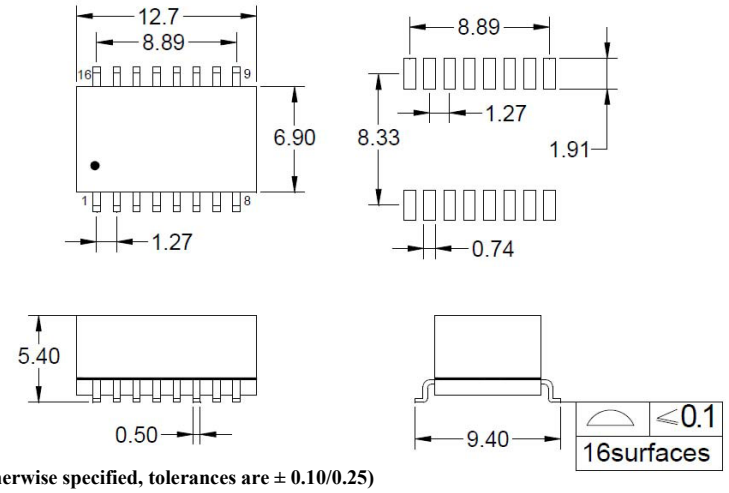
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP
- Symmetrical Tx & RX channles for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC Cards

STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		+85	°C	
Storage Temperature	-40		+85	°C	
Turn Ratio (± 2%)		1CT:1CT			
Inductance (OCL)	350			µH	100KHz/0.1V@8mA
Leakage Inductance (LL)			0.5	µH	100KHz/0.1V
Cw/w		30		pF	100KHz/0.1V
DC Resistance			1.2	Ω	
Insertion Loss			-1.0	dB	0.3-100MHz
Return Loss	-18			dB	2-30MHz
	-14.4				40MHz
	-13.1				50MHz
	-12				60-80MHz
Cross Talk	-55			dB	0.3MHz
	-45				30MHz
	-40				60MHz
	-33				100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection	-37			dB	1-60MHz
	-25				60-200MHz
Hi-Pot	1500Vrms				

OUTLINE DRAWING:

Recommended Land Pattern



Dimensions: inch/mm (Unless otherwise specified, tolerances are ± 0.10/0.25)

2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 03.25.15**
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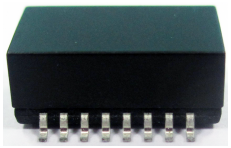

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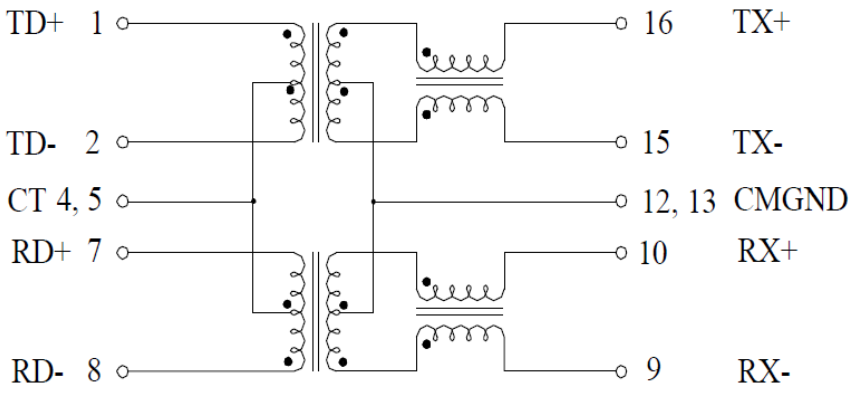
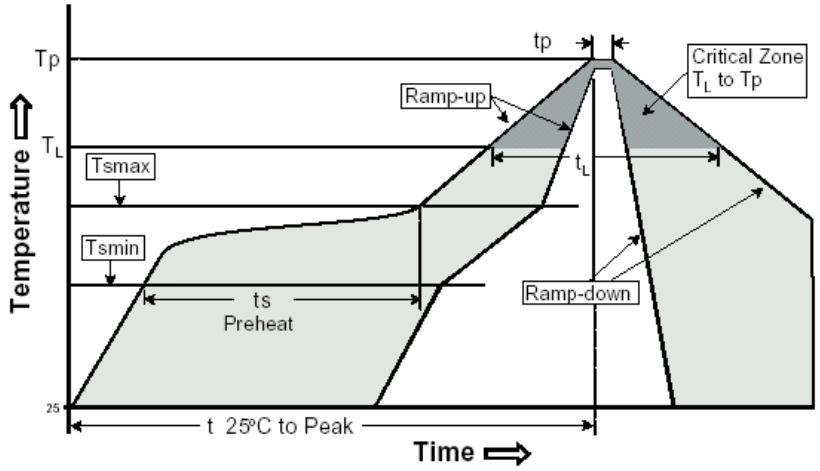
SCHEMATIC:



REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Ts_{max} to Tp)	3°C /second max.
Preheat -Temperature Min (Ts_{min}) -Temperature Max (Ts_{max}) -Time (ts_{min} to ts_{max})	 150°C 200°C 60-120 seconds
Time maintained above: -Temperature (T_L) -Time (t_L)	 217°C 60-150 seconds
Peak/Classification Temperature (Tp)	240±5°C
Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	6°C /seconds max
Time 25°C to Peak Temperature	8 minutes max.

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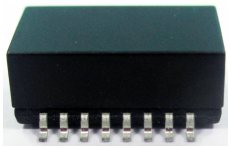
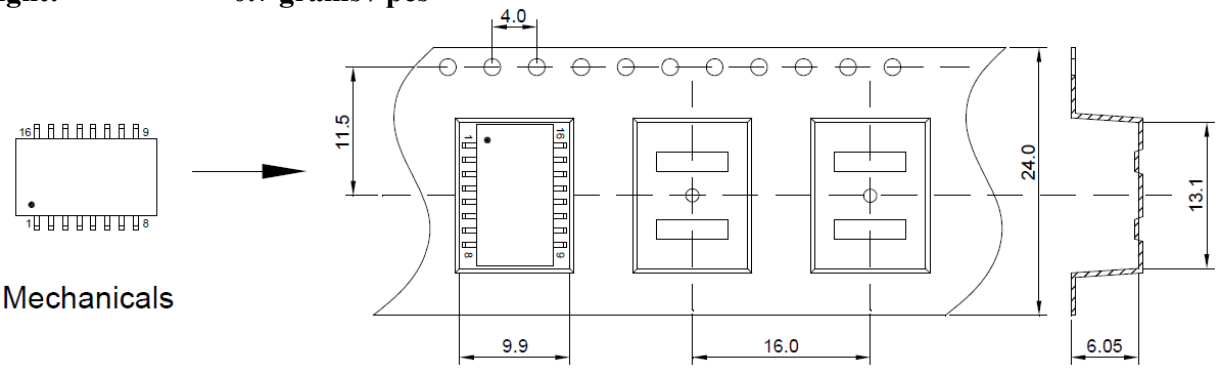


12.70 x 9.40 x 5.40 mm

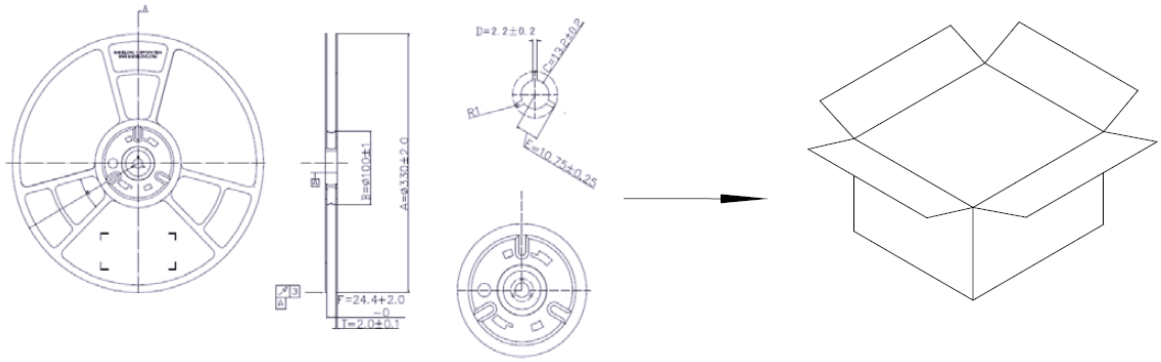
TAPE & REEL:

Packing Option I: **700 pcs / reel**
Weight: **0.7 grams / pcs**

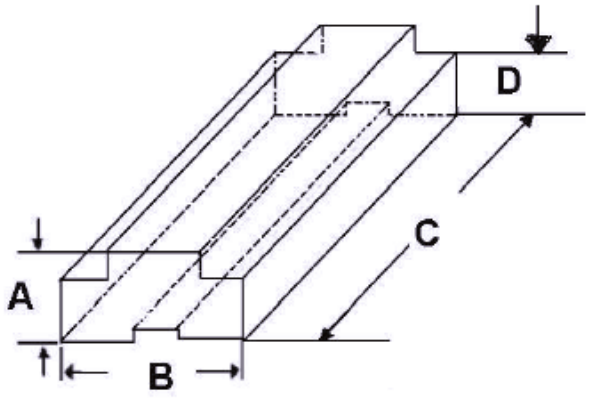


Mechanicals

Tape & Reel



Packing Option II: **36 pcs / tube**
Weight: **0.7 grams / pcs**



A	B	C	D
9.20	13.70	485.0	6.0

Dimensions: mm

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