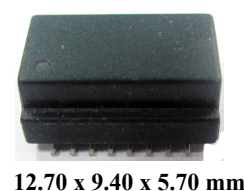


10/100 Base-T Single Port LAN Transformer w/ PoE Extended Temperature

ALAN-102

RoHS/RoHS II Compliant



12.70 x 9.40 x 5.70 mm

FEATURES:

- Meet IEEE802.3 specification
- Power Over Ethernet(PoE)IEEE802.3at compliant performance
- Extended Temperature (-40°C - +85°C)
- ROHS peak reflow temperature rating 245°C
- 1500Vrms Hi-Pot

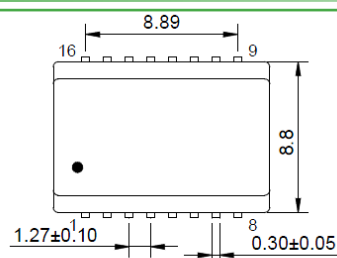
APPLICATIONS:

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

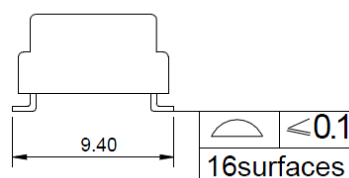
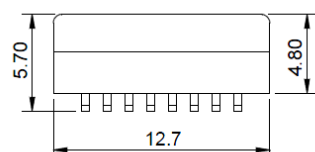
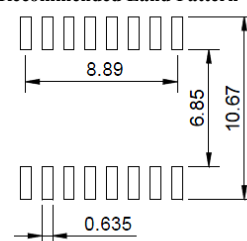
STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		+85	°C	
Storage Temperature	-40		+85	°C	
Turn Ratio ($\pm 2\%$)		1CT:1CT			
Inductance (OCL)	350			μH	100KHz/0.1V@8mA
Leakage Inductance (LL)			0.4	μH	100KHz/0.1V
Cw/w			25	pF	100KHz/0.1V
DC Resistance			1.5	Ω	
Insertion Loss			-1.1	dB	0.3-100MHz
Return Loss		-20		dB	30MHz
		-14			60MHz
		-11.5			80MHz
Cross Talk	-45			dB	30MHz
	-40				60MHz
	-27				100MHz
Differential to Common Mode Rejection	-42			dB	30MHz
	-37				50MHz
	-33				100MHz
Common Mode Rejection	-30			dB	1-100MHz
PoE Current Capacity			350	mA	
Hi-Pot	1500Vrms				

OUTLINE DRAWING:



Recommended Land Pattern



Dimensions: inch/mm (Unless otherwise specified, tolerances are $\pm 0.01/0.25$)

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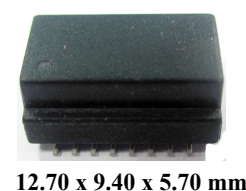


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10/100 Base-T Single Port LAN Transformer w/ PoE Extended Temperature

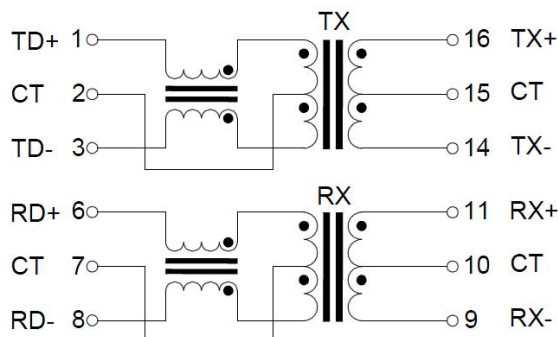
ALAN-102

RoHS/RoHS II Compliant

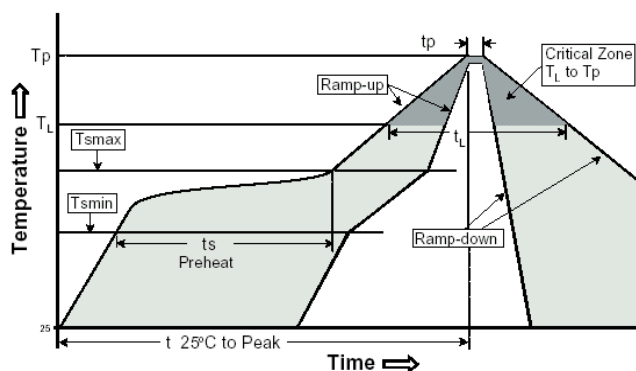


12.70 x 9.40 x 5.70 mm

SCHEMATIC:



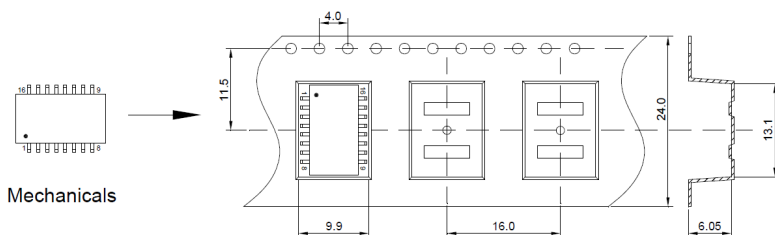
REFLOW PROFILE:



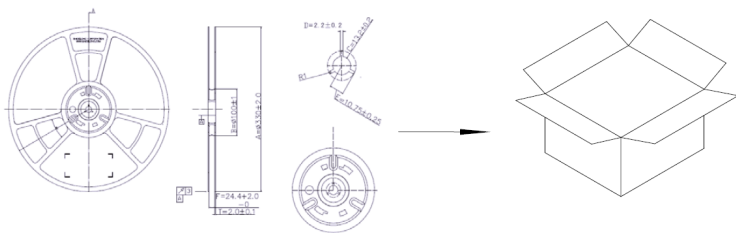
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T_{smax} to T_p)	3°C /second max.
Preheat	
-Temperature Min (T_{smin})	150°C
-Temperature Max (T_{smax})	200°C
-Time (t_{smin} to t_{smax})	60-120 seconds
Time maintained above:	
-Temperature (T_l)	217°C
-Time (t_L)	60-150 seconds
Peak/Classification Temperature (T_p)	245±5°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-Down Rate	6°C /seconds max
Time 25°C to Peak Temperature	8 minutes max.

TAPE & REEL:

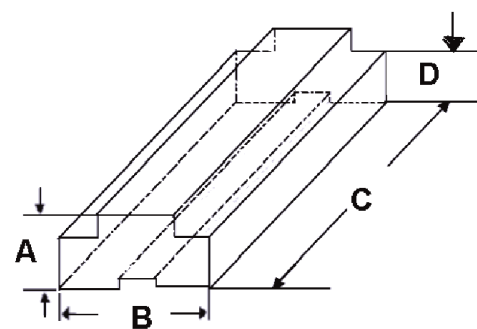
Packing Option I: 700 pcs / reel
Weight: 0.7 grams / pcs



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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