

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



12.70 x 9.40 x 5.70mm

**ALAN-505**

**RoHS/RoHS II Compliant**

## FEATURES:

- Meet IEEE802.3 specification
- Power Over Ethernet(PoE)IEEE802.3at compliant performance
- RoHS peak reflow temperature rating 245°C
- 1500Vrms Hi-Pot

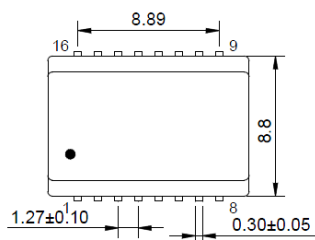
## APPLICATIONS:

- 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

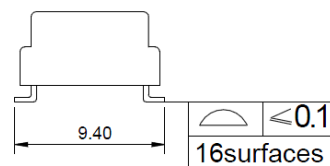
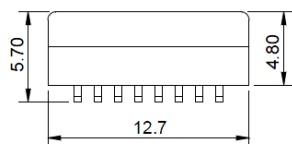
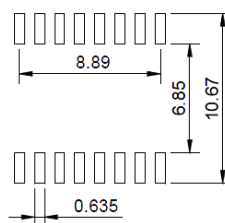
## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	0		+70	°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	0.1-100MHz
Return Loss		-16		dB	30MHz
		-12			60MHz
		-11			80MHz
Cross Talk		-50		dB	30MHz
		-45			62MHz
		-40			100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection		-35		dB	30MHz
		-33			50MHz
		-20			100MHz
		-20			150MHz
PoE Current Capacity			350	mA	
Hi-Pot	1500Vrms/0.5mA/60Sec or 1650Vrms/0.5mA/2Sec				

## OUTLINE DIMENSIONS:



### Recommended Land Pattern



**Dimensions: mm (Unless otherwise specified, tolerances are ±0.25)**

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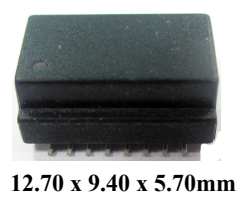
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The Power of Linking Together

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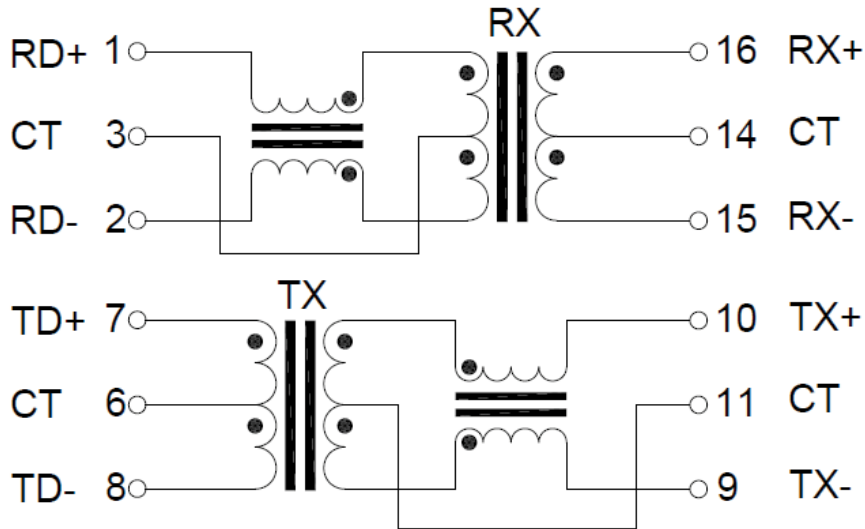
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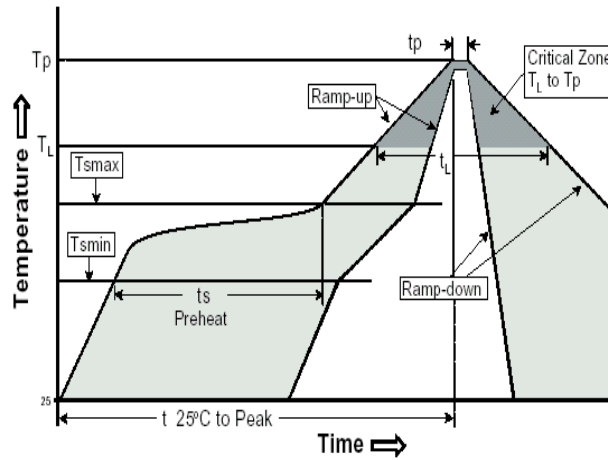


12.70 x 9.40 x 5.70mm

## SCHEMATIC:



## REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (T <sub>s max</sub> to T <sub>p</sub> )	3°C /second max.
Preheat	
-Temperature Min (T <sub>s min</sub> )	150°C
-Temperature Max (T <sub>s max</sub> )	200°C
-Time (t <sub>s min</sub> to t <sub>s max</sub> )	60-120 seconds
<b>Time maintained above:</b>	
-Temperature (T <sub>L</sub> )	217°C
-Time (t <sub>L</sub> )	60-150 seconds
Peak/Classification Temperature (T <sub>p</sub> )	245±5°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-Down Rate	6°C /seconds max
Time 25°C to Peak Temperature	8 minutes max.

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