

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



12.70 x 9.40 x 5.70 mm

ALAN-508

RoHS/RoHS II Compliant

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

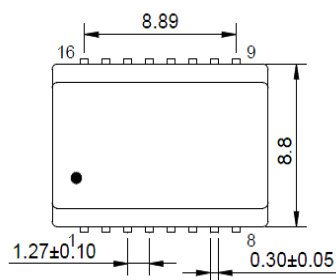
APPLICATIONS:

- 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

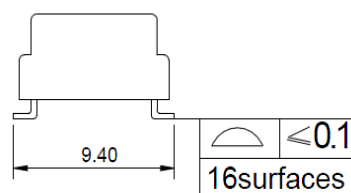
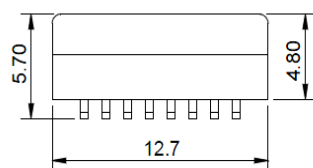
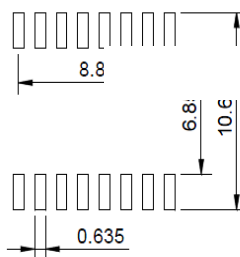
STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		+85	°C	
Storage Temperature	-40		+85	°C	
Turn Ratio (± 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			-1.1	dB	0.1-100MHz
Return Loss		-18		dB	30MHz
		-14			60MHz
		-11.5			80MHz
Cross Talk		-45		dB	30MHz
		-40			60MHz
		-35			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



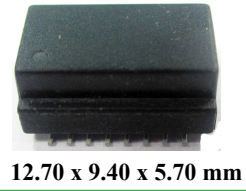
Dimensions: inch/mm (Unless otherwise specified, tolerances are ±0.01/0.25)

ABRACON IS
ISO9001:2008
CERTIFIED



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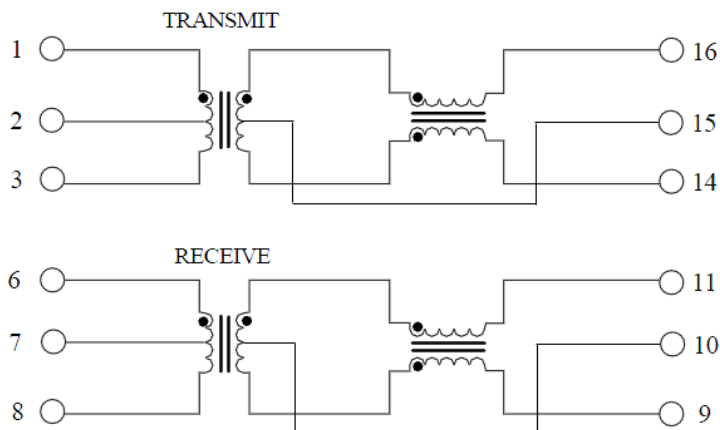


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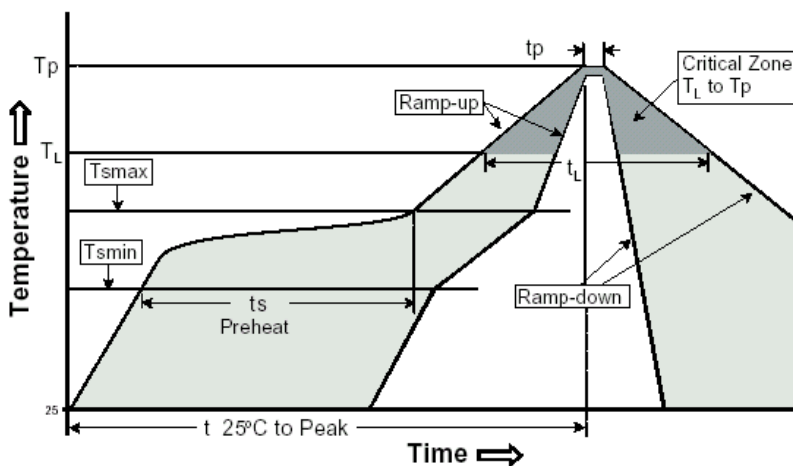
RoHS/RoHS II Compliant

12.70 x 9.40 x 5.70 mm

SCHEMATIC:



REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ($T_{s\ max}$ to T_p)	3°C /second max.
Preheat	
-Temperature Min ($T_{s\ min}$)	150°C
-Temperature Max ($T_{s\ max}$)	200°C
-Time ($t_{s\ min}$ to $t_{s\ max}$)	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.