# 10/100 Base-T Single Port LAN Transformer w/ PoE Extended Temperature 3 Cores Solution

# **ALAN-2201**

### **RoHS/RoHS II Compliant**



#### **FEATURES:**

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

#### **APPLICATIONS:**

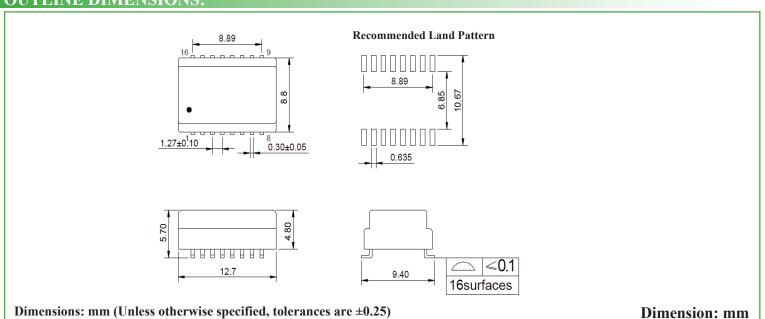
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP/PoE Capabilities
- Symmetrical Tx & RX channles for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC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

#### > STANDARD SPECIFICATIONS:

**Key Electrical Specifications @ 25°C** 

Parameters	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-40		+85	°C	
Storage Temperature	-40		+85	°C	
Turn Ratio (± 5%)		1CT:1CT			
Inductance (OCL)	350			μН	100KHz/0.1V@8mA
Leakage Inductance (LL)			0.5	μН	100KHz/0.1V
Cw/w			30	pF	100KHz/0.1V
DC Resistance			1.2	Ω	
Insertion Loss			-1.1	dB	1-100MHz
Return Loss	-18			dB	1-30MHz
	-16				40MHz
	-13				50MHz
	-12				60-80MHz
Cross Talk		-30		dB	1-100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection	-30			dB	1-100MHz
PoE Current Capacity			350	mA	
Hi-Pot	1500Vrms				

# **OUTLINE DIMENSIONS:**



ABRACON IS ISO 9001:2008 CERTIFIED

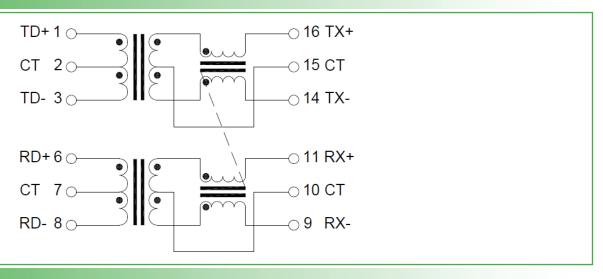


12.70 x 9.40 x 5.70mm

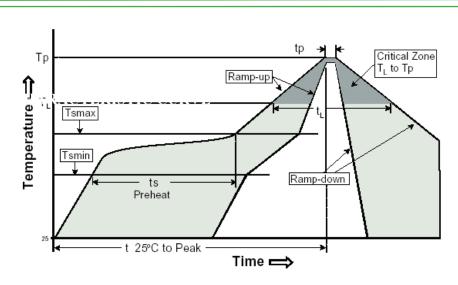
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# **SCHEMATICS**



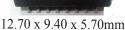
# **REFLOW PROFILE:**



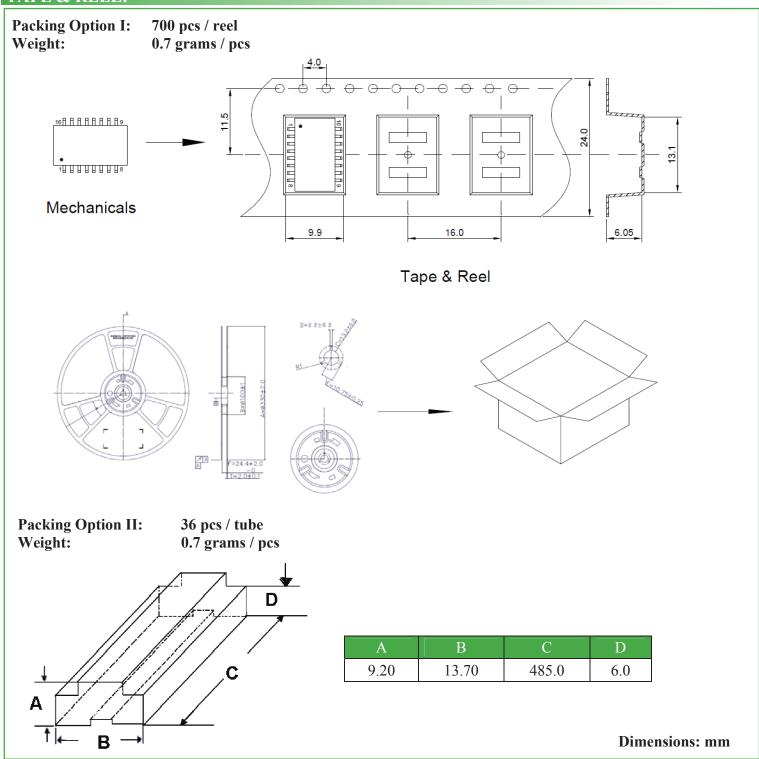
Profile Feature	Pb-Free Assembly		
Average Ramp-Up Rate	3°C /second max.		
(Ts max to Tp)			
Preheat			
-Temperature Min (Ts min)	150°C		
-Temperature Max (Ts <sub>max</sub> )	200°C		
-Time (ts <sub>min</sub> to ts <sub>max</sub> )	60-120 seconds		
Time maintained above:			
-Temperature (T <sub>L</sub>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

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# ► TAPE & REEL:



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