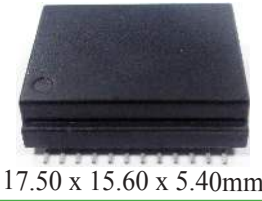


# 100/1000 Base-T Single Port LAN Transformer w/ PoE+, 3 Wires Extended Temperature



**ALAN-2302**

**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
- 1000Base-T Ethernet-LAN
- 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

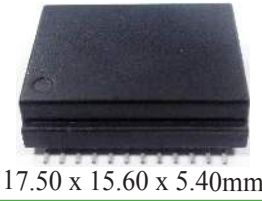
➤ **STANDARD SPECIFICATIONS:**

**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			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	0.1MHz
			-1.0		100MHz
			-2.0		125MHz
Return Loss	-18			dB	30MHz
	-14.4				40MHz
	-12				80MHz
	-10				100MHz
Cross Talk		-41		dB	30MHz
		-37			60MHz
		-33			100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection	-30			dB	1-100MHz
PoE Current Capacity			750	mA	
Hi-Pot	1500Vrms/0.5mA/60Sec or 1650Vrms/0.5mA/2Sec				



# 100/1000 Base-T Single Port LAN Transformer w/ PoE+, 3 Wires Extended Temperature

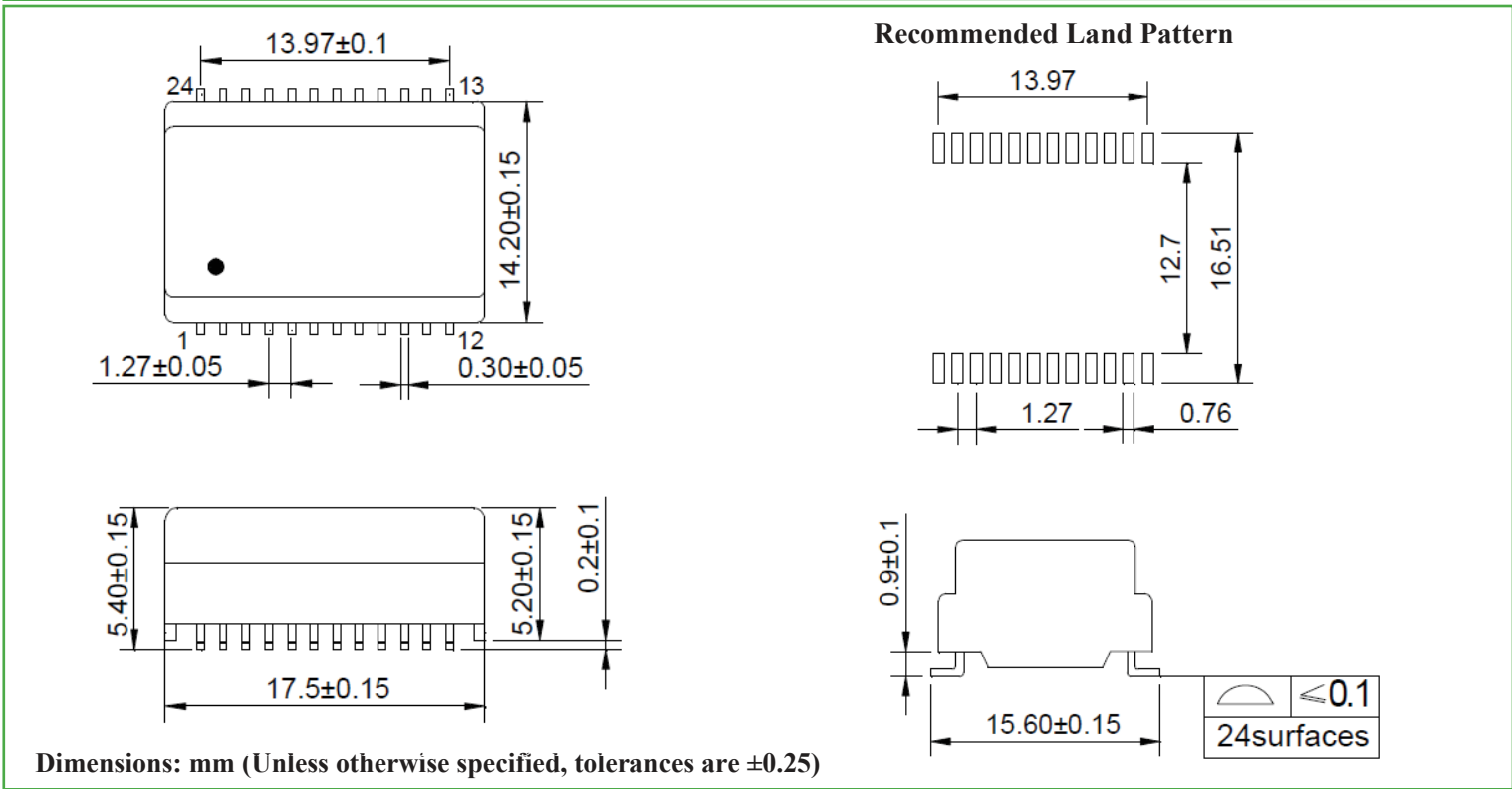


17.50 x 15.60 x 5.40mm

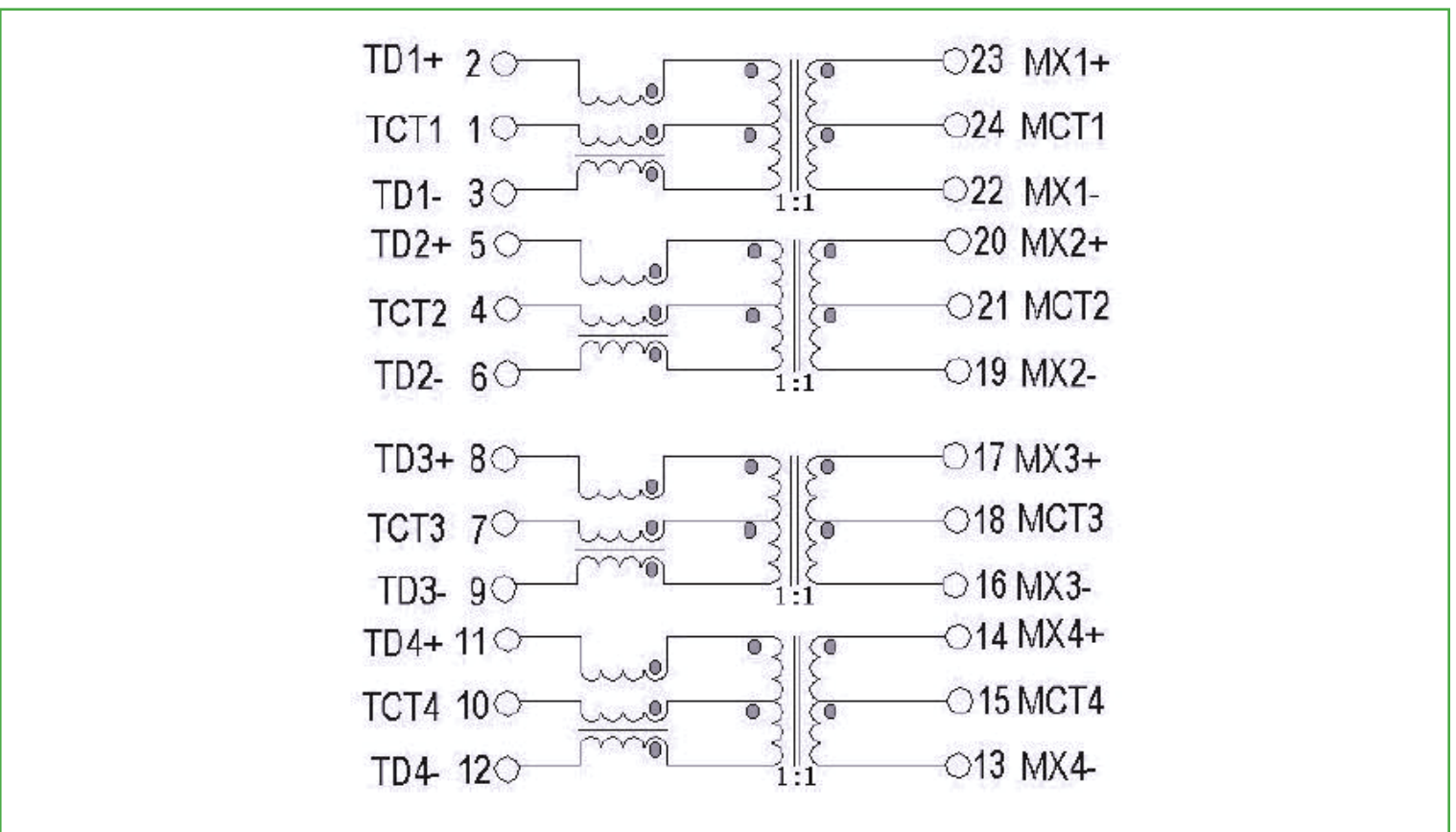
**ALAN-2302**

**RoHS/RoHS II Compliant**

## OUTLINE DIMENSIONS:



## SCHEMATICS

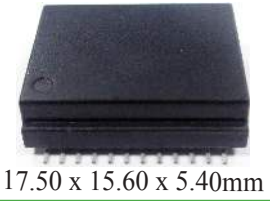


ABRACON IS  
ISO 9001:2008  
CERTIFIED



2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 03.24.15**  
Ph. 949.546.8000 | Fax. 949.546.8001  
Visit [www.abracon.com](http://www.abracon.com) for Terms and Conditions of Sale

# 100/1000 Base-T Single Port LAN Transformer w/ PoE+, 3 Wires Extended Temperature

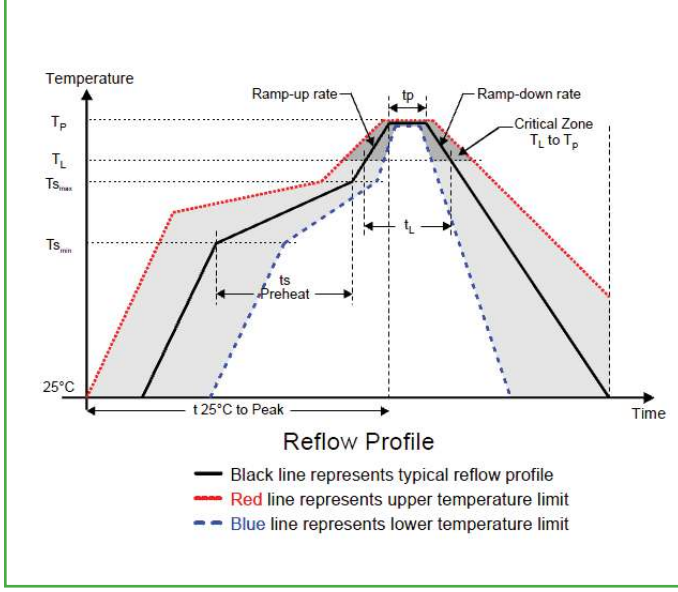


**ALAN-2302**

**RoHS/RoHS II Compliant**

17.50 x 15.60 x 5.40mm

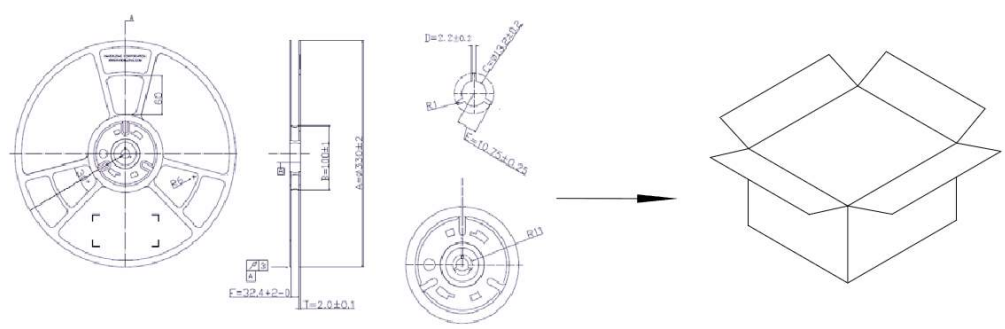
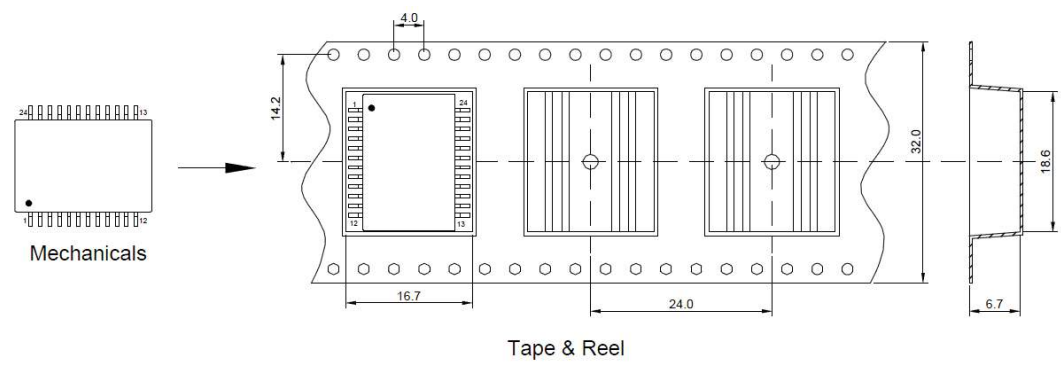
## REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Ts <sub>max</sub> to Tp)	3°C /second max.
Preheat	
-Temperature Min (Ts <sub>min</sub> )	150°C
-Temperature Max (Ts <sub>max</sub> )	200°C
-Time (ts <sub>min</sub> to ts <sub>max</sub> )	60-120 seconds
<b>Time maintained above:</b>	
-Temperature (TL)	217°C
-Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	245+0/-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.

## TAPE & REEL:

**Packing :** 400 pcs / reel  
**Weight :** 2.1 grams / pcs



**Dimensions: mm**

**ATTENTION:** Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS  
ISO 9001:2008  
CERTIFIED



2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 03.24.15**  
Ph. 949.546.8000 | Fax. 949.546.8001  
Visit [www.abracon.com](http://www.abracon.com) for Terms and Conditions of Sale