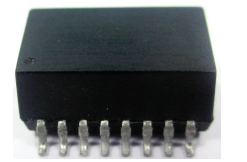


# 10/100 Base-T Single Port LAN Transformer Extended Temperature

**ALAN-101**

**RoHS/RoHS II Compliant**



11.43 x 9.24 x 5.37 mm

## FEATURES:

- Meet IEEE802.3 specification
- Extended Temperature (-40°C - +85°C)
- ROHS peak reflow temperature rating 230°C
- 1500Vrms Hi-Pot

## APPLICATIONS:

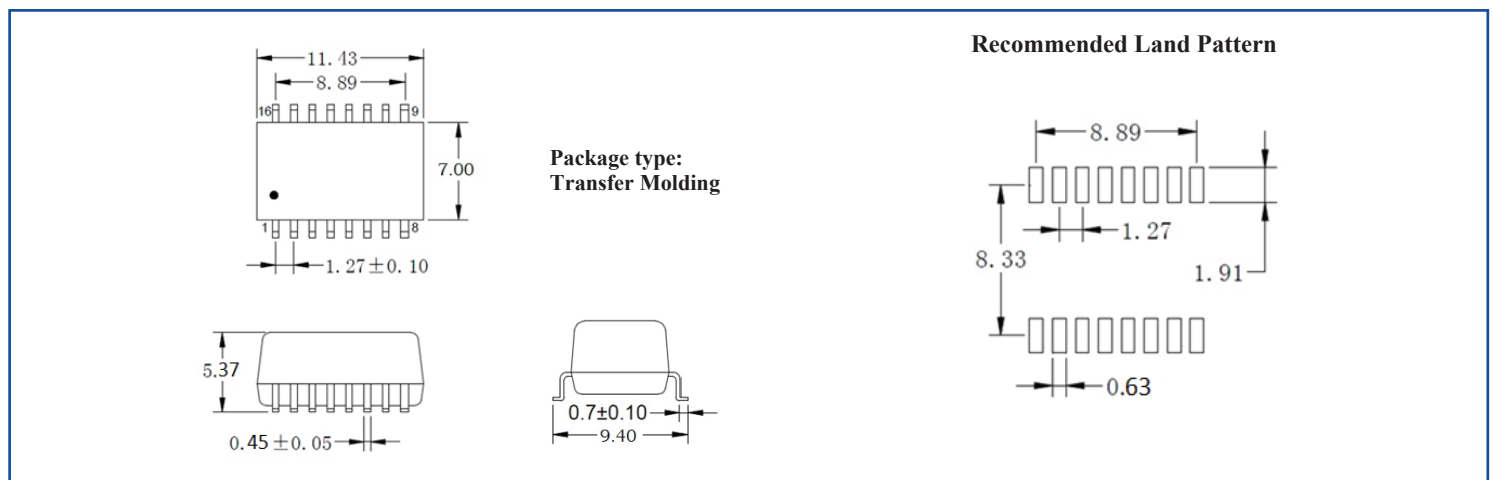
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP
- Symmetrical Tx & RX channels for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC Cards

## 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 (± 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
Hi-Pot	1500Vrms/0.5mA/60Sec or 1650Vrms/0.5mA/2Sec				

## OUTLINE DRAWING:



ABRACON IS  
ISO9001:2015  
CERTIFIED

**ABRACON** LLC

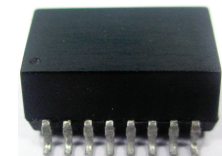
5101 Hidden Creek Lane Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sale please visit:  
[www.abracon.com](http://www.abracon.com)

**REVISED: 03.18.2020**

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

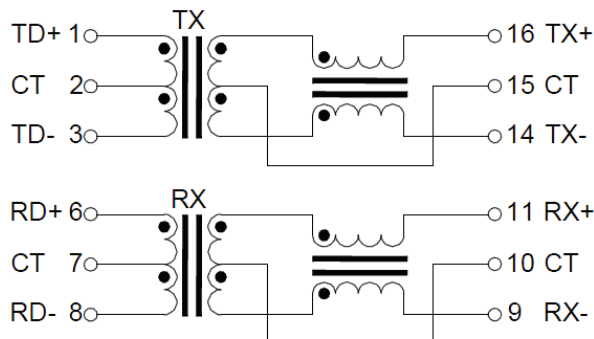
ALAN-101

RoHS/RoHS II Compliant

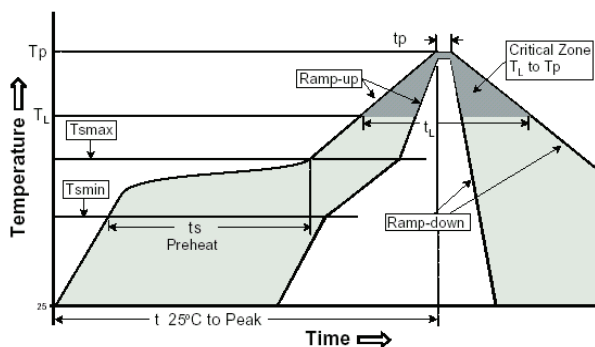


11.43 x 9.24 x 5.37 mm

## SCHEMATIC:



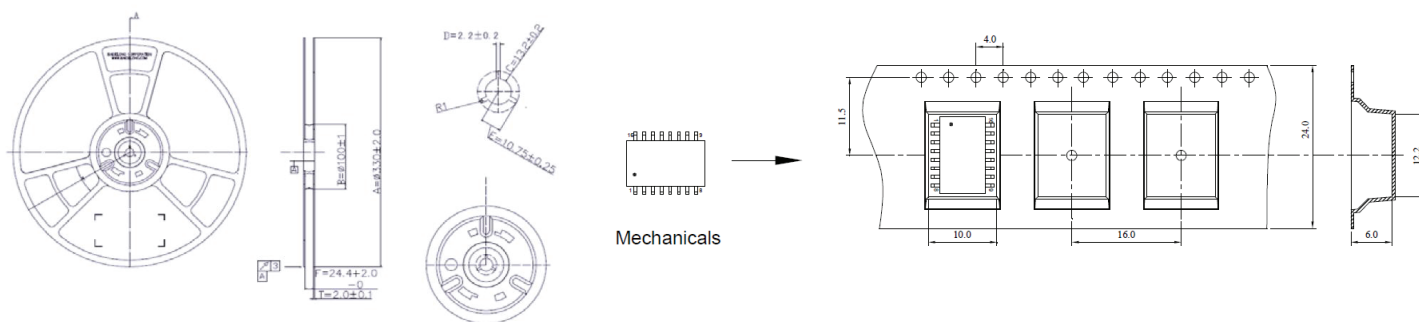
## REFLOW PROFILE:



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ( $T_{smax}$ to $T_p$ )	3°C /second max.
Preheat	
-Temperature Min ( $T_{smin}$ )	100°C
-Temperature Max ( $T_{smax}$ )	150°C
-Time ( $t_{smin}$ to $t_{smax}$ )	60-120 seconds
<b>Time maintained above:</b>	
-Temperature ( $T_L$ )	183°C
-Time ( $t_L$ )	60-150 seconds
Peak/Classification Temperature ( $T_p$ )	230±5°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	10-30 seconds
Ramp-Down Rate	6°C /seconds max
Time 25°C to Peak Temperature	8 minutes max.

## TAPE & REEL:

Packing: 700pcs/reel  
Weight/pcs: 0.65 grams  
Weight/carton: 10.6 kg



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.

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