

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

ALAN-101

RoHS/RoHS II Compliant



11.43 x 9.24 x 5.51 mm

FEATURES:

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

APPLICATIONS:

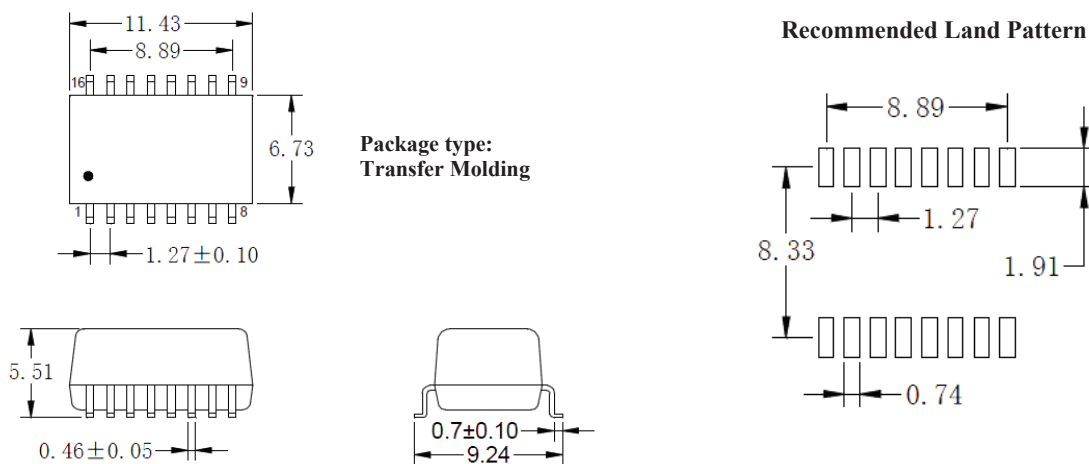
- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP
- Symmetrical Tx & RX channels for Auto MDI/MDIX capability
- Provides signal conditioning, EMI suppression and signal isolation.
- Hubs/Switches/Routers/Servers/NIC Cards

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 ($\pm 2\%$)		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:



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

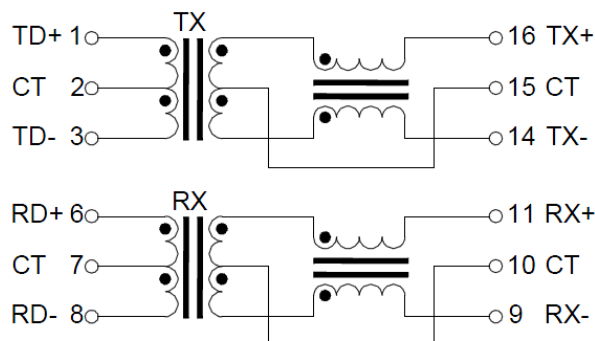
ALAN-101

RoHS/RoHS II Compliant

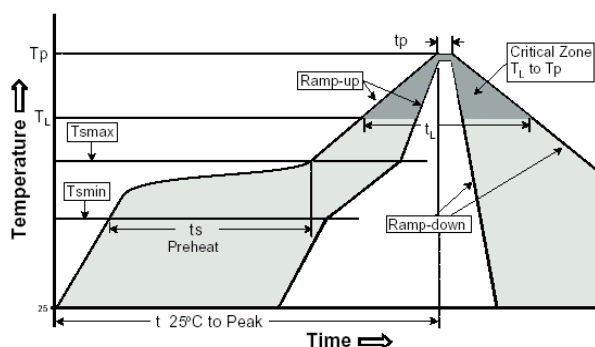


11.43 x 9.24 x 5.51 mm

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
Time maintained above:	
-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.

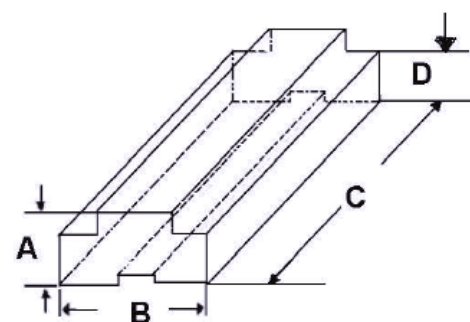
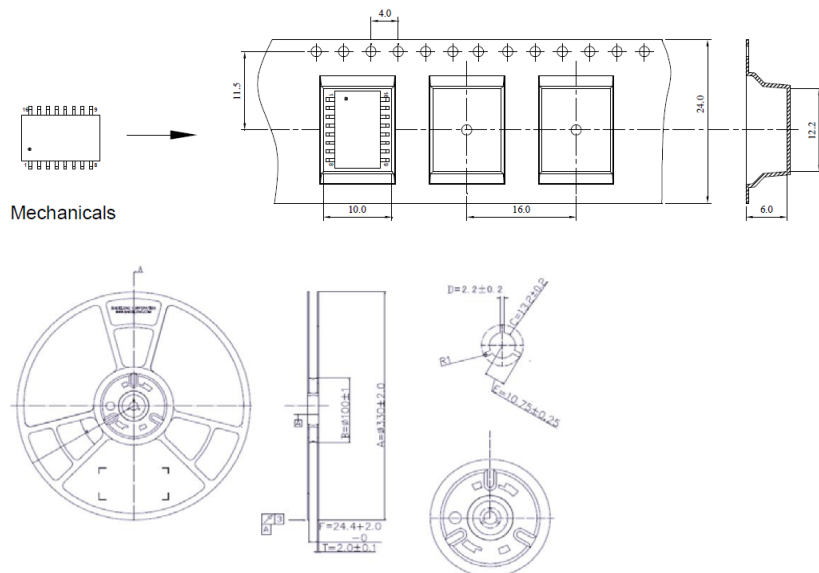
TAPE & REEL:

Packing option I: 700pcs/reel

Weight: 1.0 grams / pcs

Packing option II: 40pcs/tube

Weight: 1.0 grams / pcs



A	B	C	D
9.20	13.70	485.0	6.0

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
ISO9001:2008
CERTIFIED

ABRACON
The Power of Linking Together

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