# Quad Port 10/100BASE-T LAN Transformer for Auto MDI/MDIX Extended Temperature

ALAN-409

**RoHS/RoHS II Compliant** 



#### > FEATURES:

- Meet IEEE802.3 specification
- Extended Temperature (-40°C +85°C)
- ROHS peak reflow temperature rating 240°C
- 1500Vrms Hi-Pot

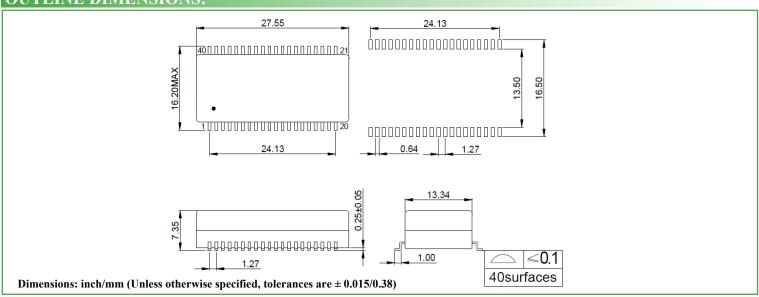
#### > APPLICATIONS:

- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP
- Symmetrical Tx & RX channles 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			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			-1.0	dB	0.1-100MHz
Return Loss	-18			dB	2-30MHz
	-14.4				40MHz
	-13.1				50MHz
	-12				60-80MHz
Cross Talk	-55			dB	1MHz
	-40				30MHz
	-35				60MHz
	-30				100MHz
Differential to Common Mode Rejection	-30			dB	1-100MHz
Common Mode Rejection	-35			dB	1-60MHz
	-25				60-200MHz
Hi-Pot		1500Vrms			

### **OUTLINE DIMENSIONS:**







2 Faraday, Suite# B | Irvine | CA 92618 **Revised: 03.25.15** Ph. 949.546.8000 | Fax. 949.546.8001

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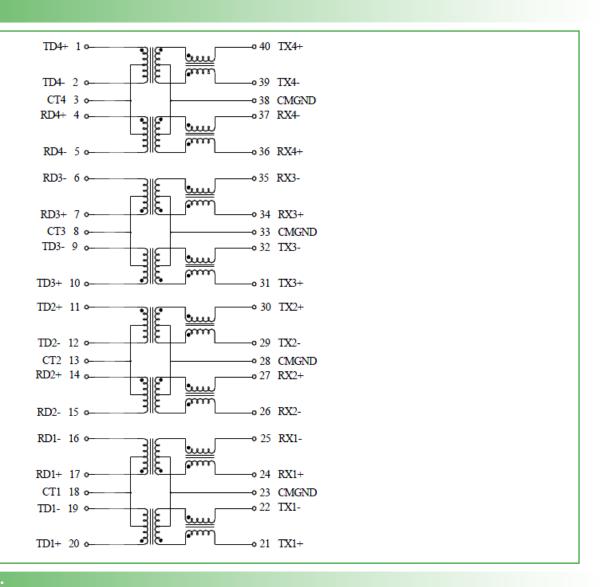
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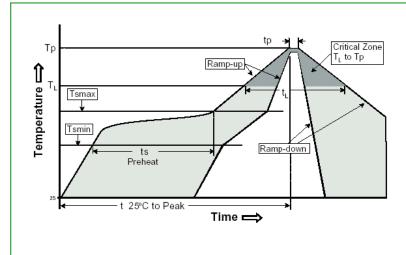
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## **SCHEMATICS**



#### REFLOW PROFILE:



Profile Feature	Pb-Free Assembly		
Average Ramp-Up Rate	3°C /second max.		
(Ts <sub>max</sub> to Tp)			
Preheat			
-Temperature Min (Ts min)	150°C		
-Temperature Max (Ts max)	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 $(t_L)$	60-150 seconds		
Peak/Classification Temperature (Tp)	240±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.		



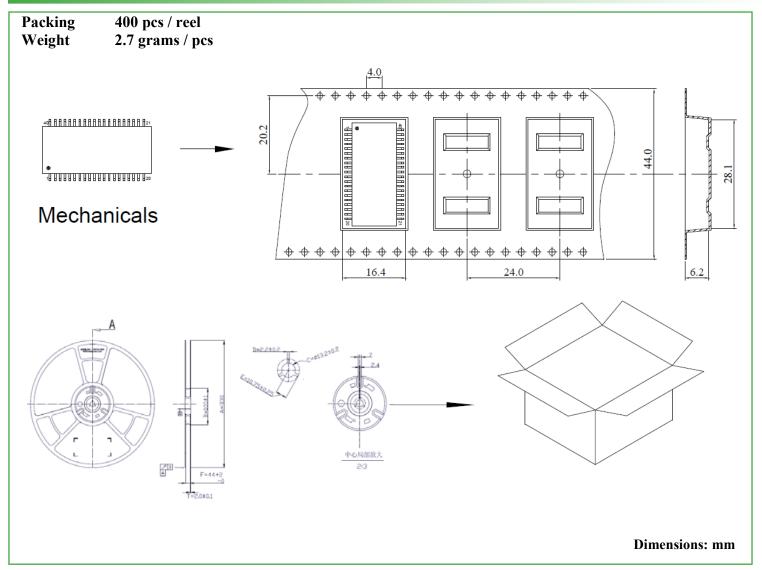
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## > TAPE & REEL:



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