

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



27.55 x 16.20 x 7.35mm

**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

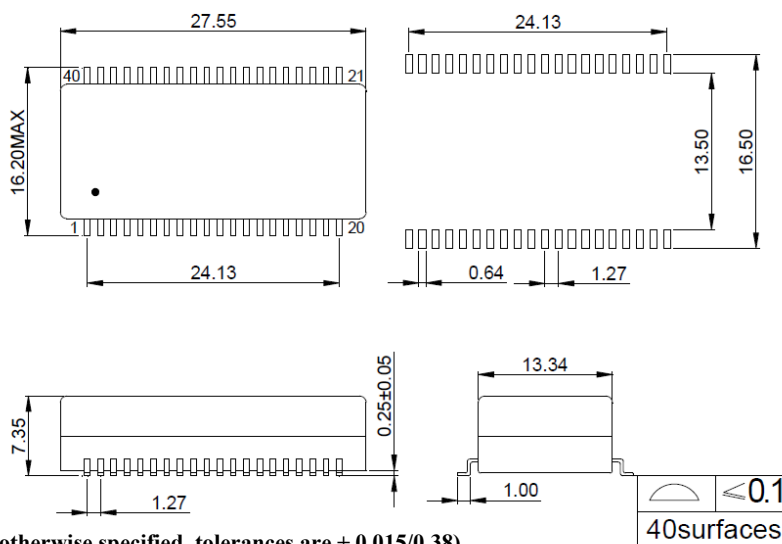
## APPLICATIONS:

- Designed for most leading PHY IC manufacturers such as Broadcom, Marvell, Micrel, & Microsemi
- 10/100Base-T Ethernet-LAN
- VoIP
- Symmetrical Tx & RX channels 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			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			-1.0	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:



Dimensions: inch/mm (Unless otherwise specified, tolerances are ± 0.015/0.38)

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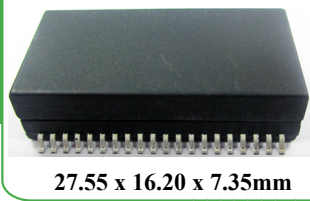
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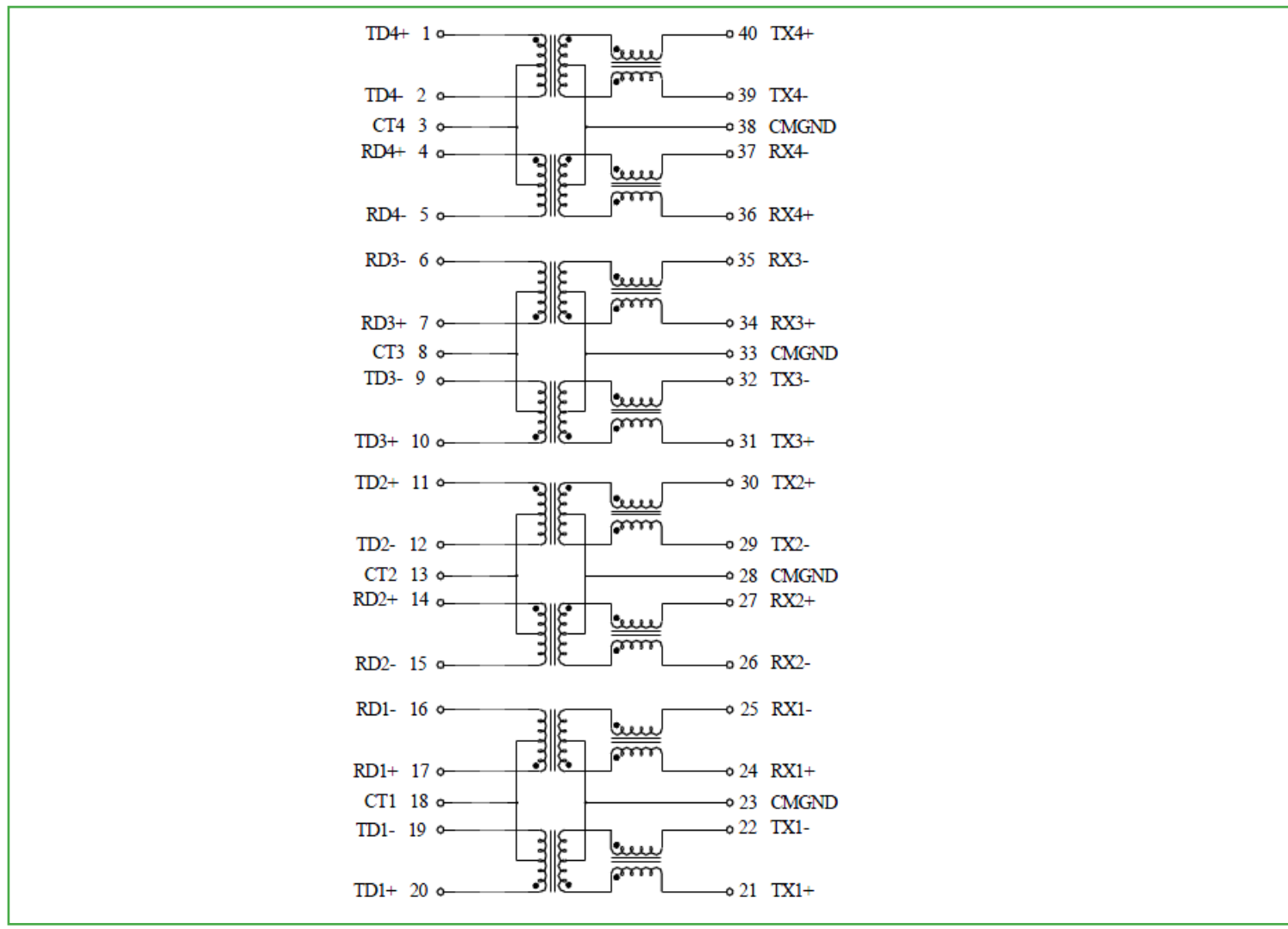
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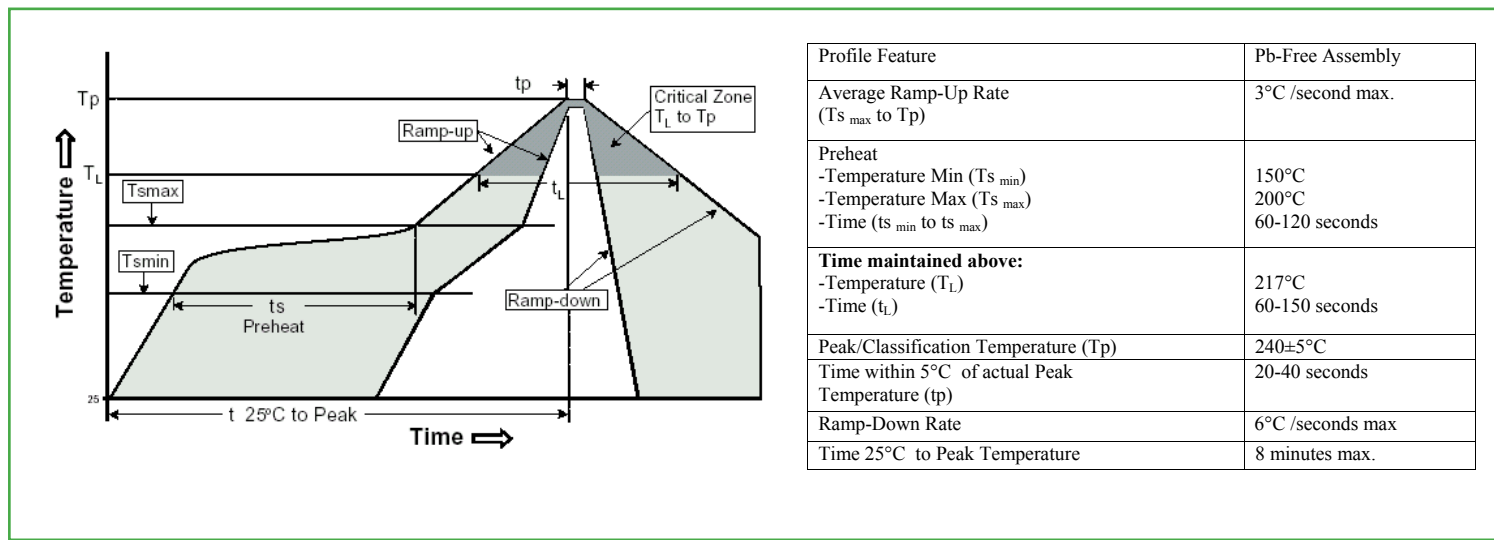


27.55 x 16.20 x 7.35mm

## SCHEMATICS



## 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 (T <sub>L</sub> )	217°C
-Time (t <sub>L</sub> )	60-150 seconds
Peak/Classification Temperature (Tp)	240±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.

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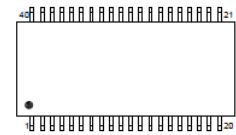
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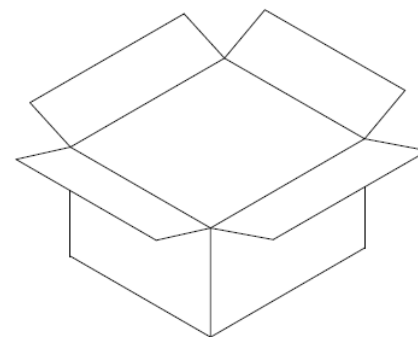
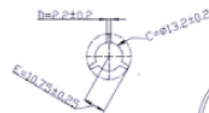
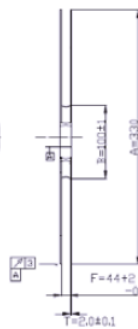
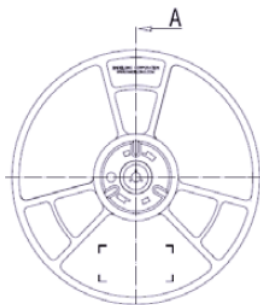
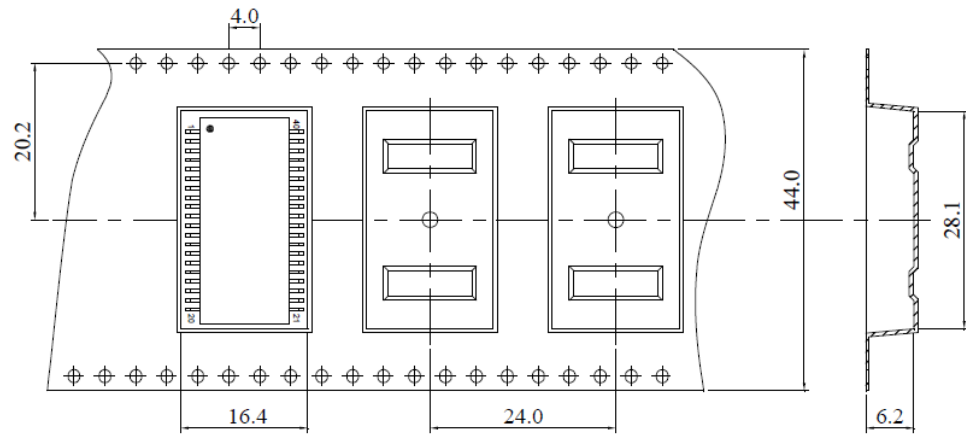
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## TAPE & REEL:

**Packing** 400 pcs / reel  
**Weight** 2.7 grams / pcs



Mechanicals



Dimensions: mm

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