

100/1000 Base-T Single Port LAN Transformer w/ Extended Temperature, Auto X'FMR

ALAN-1002

RoHS/RoHS II Compliant



17.50 x 15.60 x 5.40mm

FEATURES:

- Meet IEEE802.3 specification
- 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
- 100/1000Base-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 (± 5%)		1CT:1			
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			1.5	Ω	
Insertion Loss			-1.2	dB	0.3-100MHz
Return Loss	-18			dB	1-30MHz
	-14.4				40MHz
	-13.1				50MHz
	-12				60-80MHz
	-10				100MHz
Cross Talk		-45		dB	30MHz
		-40			60MHz
		-35			100MHz
Differential to Common Mode Rejection	-43			dB	30MHz
	-37				80MHz
	-33				100MHz
Common Mode Rejection	-30			dB	1-100MHz
Hi-Pot	1500Vrms				

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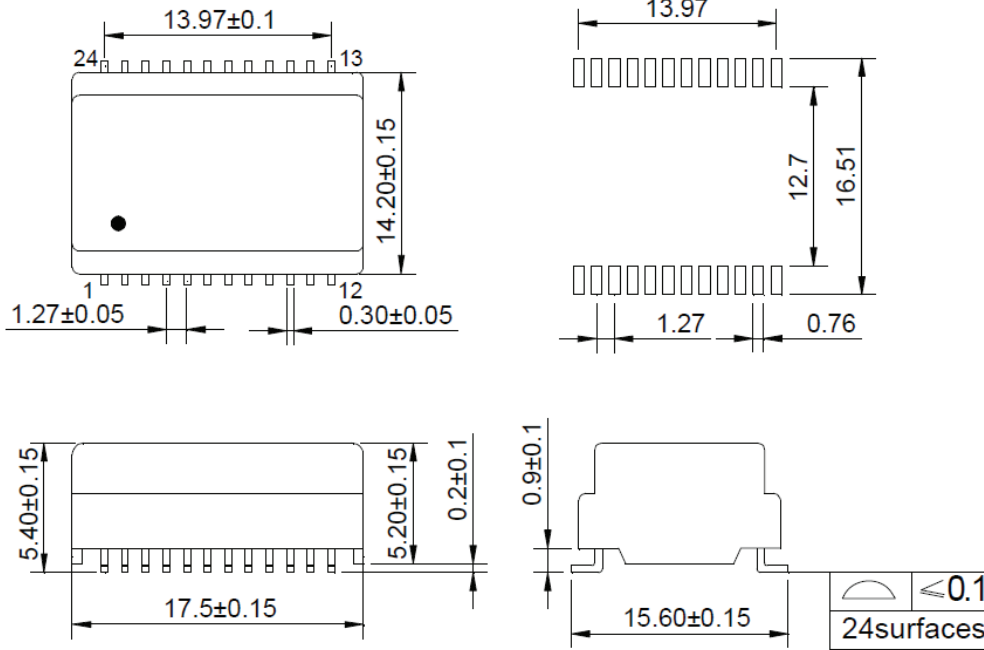
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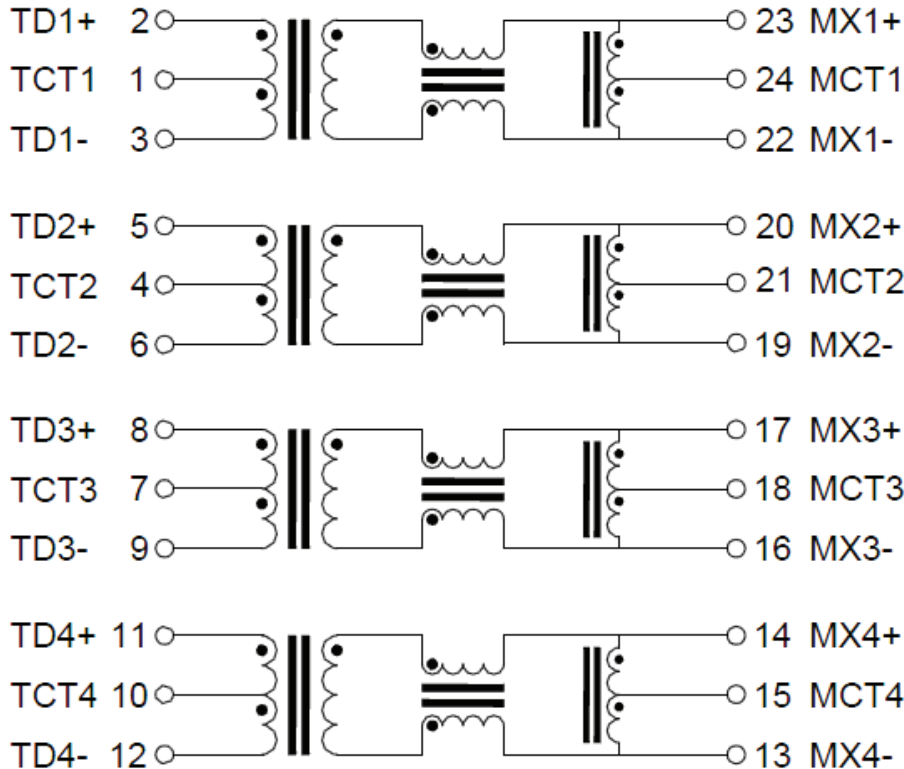
OUTLINE DIMENSIONS:

Recommended Land Pattern



Dimensions: mm (Unless otherwise specified, tolerances are ± 0.25)

SCHEMATICS



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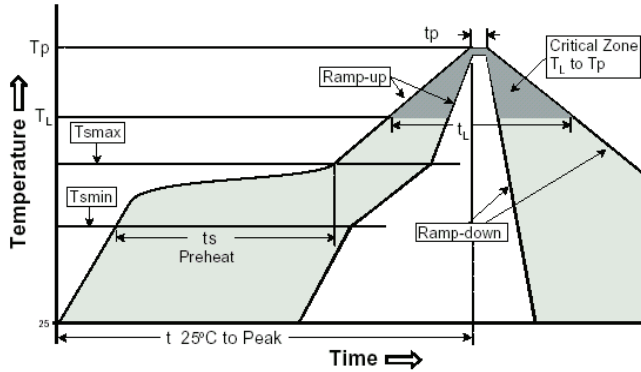
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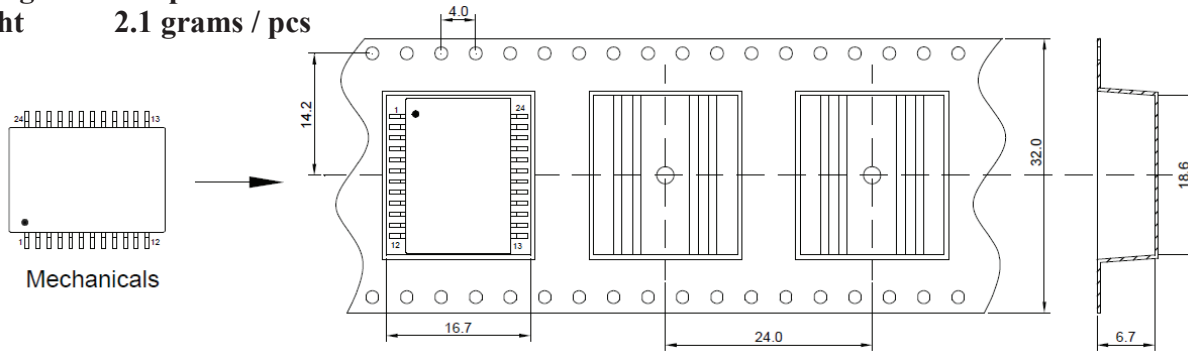
REFLOW PROFILE:



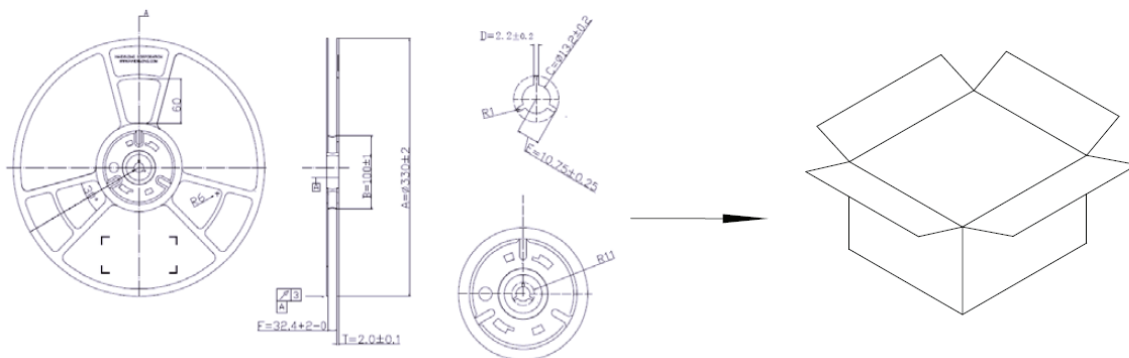
Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ($T_{s\ max}$ to T_p)	3°C /second max.
Preheat -Temperature Min ($T_{s\ min}$) -Temperature Max ($T_{s\ max}$) -Time ($t_{s\ min}$ to $t_{s\ max}$)	150°C 200°C 60-120 seconds
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak/Classification Temperature (T_p)	245±5°C
Time within 5°C of actual Peak Temperature (t_p)	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



Tape & Reel



Dimensions: mm

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