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

ALAN-101

RoHS/RoHS II Compliant



> 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

> FEATURES:

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

> 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			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			-1.1	dB	0.1-100MHz
		-18		dB	30MHz
Return Loss		-14			60MHz
		-11.5			80MHz
		-45			30MHz
Cross Talk		-40		dB	60MHz
		-35			100MHz
		-42			30MHz
Differential to Common Mode Rejection		-37		dB	50MHz
		-33			100MHz
Common Mode Rejection	-30			dB	1-100MHz
Hi-Pot		0Vrms/0.5mA/60Se 50Vrms/0.5mA/2Se			



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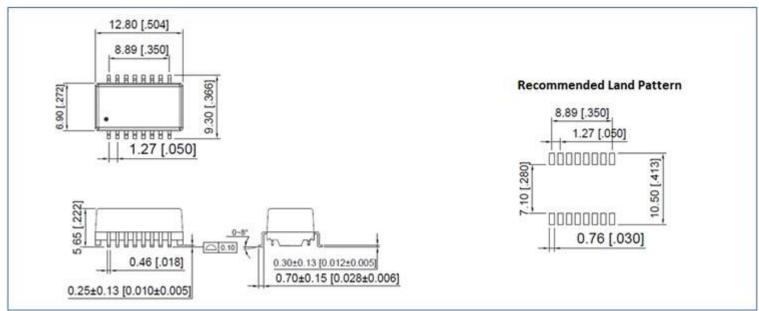
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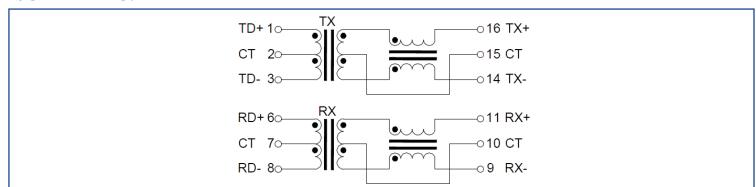
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OUTLINE DRAWING:



> **SCHEMATIC:**







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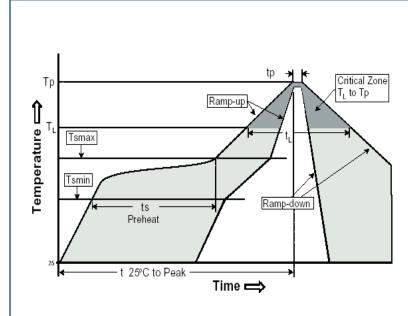
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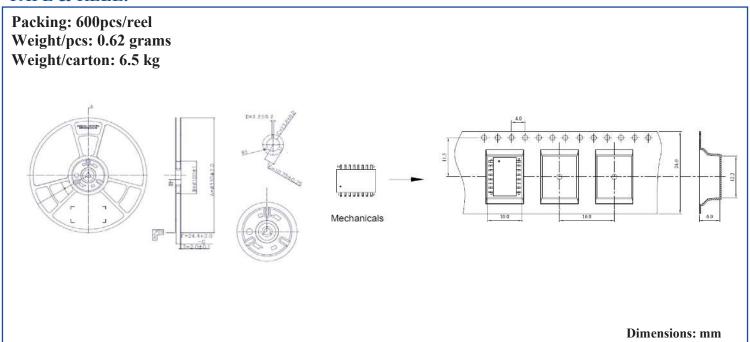


REFLOW PROFILE:



Profile Feature	Pb-Free Assembly		
Average Ramp-Up Rate	3°C /second max.		
(Ts _{max} to Tp)			
Preheat			
-Temperature Min (Ts min)	100°C		
-Temperature Max (Ts _{max})	150°C		
-Time (ts _{min} to ts _{max})	60-120 seconds		
Time maintained above:			
-Temperature (T _L)	183°C		
-Time (t _L)	60-150 seconds		
Peak/Classification Temperature (Tp)	230±5°C		
Time within 5°C of actual Peak	10-30 seconds		
Temperature (tp)			
Ramp-Down Rate	6°C /seconds max		
Time 25°C to Peak Temperature	8 minutes max.		

TAPE & REEL:



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