



# TAOGLAS®



# Datasheet

## LAN Transformer 1G Base-T PoE

**Part No:**  
TMY85ANL

### Description:

1G Base-T transformer  
24pin SMT

### Features

3 Wire + Transformer  
PCMCIA  
PoE (350mA)  
Industrial grade

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## 1. Introduction



Featuring a compatible footprint with industry LAN transformers, and designed to work in demanding industrial environmental conditions, the Taoglas TMY85ANL is a 1G Base-T Single Port of 24pin with 3 Wire and Transformer designed for PoE applications.

Typical applications for this cost-effective part are:

- Industrial Automation
- Hubs
- Routers
- Switches
- Wireless Access Points

The Taoglas Magnetics Product Team have over fifteen years of LAN magnetics design and high-quality manufacturing. With an ever-expanding portfolio, we provide trusted products and services to customers within a wide range of applications such as: Networking and Interconnect Devices, Servers, Switches, Router, Communication systems and any Digital Consumer electronics.

The Taoglas Exos Series offer an extensive product line of LAN Transformers designed for commercial and industrial grade applications, supporting 10/100 Base-T (Exos100 Series), 1G Base-T (Exos1G Series) and 10G Base-T (Exos10G Series). These products include Single, Dual, and Quad configurations not only for standard applications but also for Power over Ethernet (PoE, PoE+, PoE++).

For more information on the range of products or for assistance with integration, contact your regional Taoglas customer support team.

## 2. Specifications

Electrical Performance @25°C	
Inductance(100KHz/0.1V@8mA)	350uH Min
Turns Ratio (±2%)	1CT: 1CT
Insertion Loss	1-100MHz: -1.5dB Max
Return Loss	1-30MHz: -18dB Min
	30-60MHz: -12.5dB Min
	60-80MHz: -10.0dB Min
	80-100MHz: -8.0dB Min
Crosstalk (dB Min)	1-100MHz: -30dB
DCMR (dB Min)	-42dB(1-30MHz)
	-37dB(30-60MHz)
	-33dB(60-100MHz)
PoE applications current capability	350mA
Hi-Pot	1500Vrms

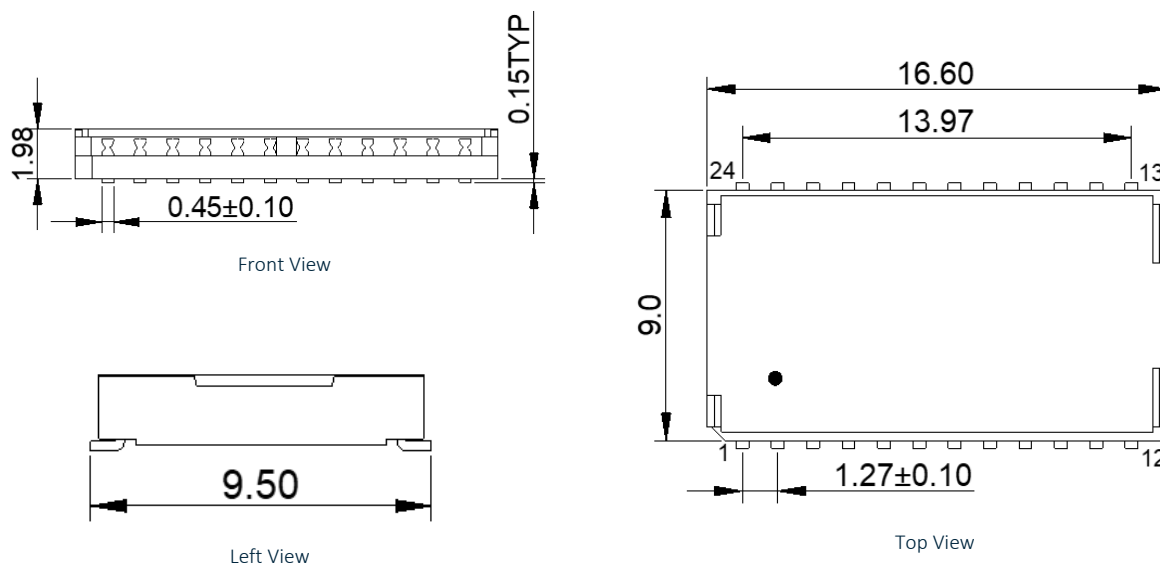
Environmental Specifications	
Operating Temperature	-40°C TO +85°C
Max. reflow temperature	240°C Max

Compliance	
RoHS Compliant	

Storage requirements	
Humidity	MSL - 1
Storage Temperature	-40°C TO +125°C

## 3. Mechanical

### 3.1 Mechanical Drawings

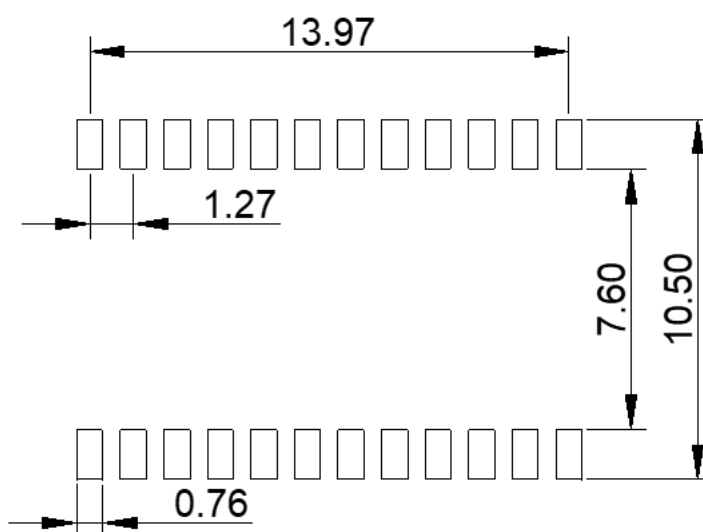


#### Mechanical Specifications

Length	16.60 mm
Width	9.5 mm
Height	1.98 mm
Mounting Style	Surface Mount (SMT)

Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.25$

### 3.2 Pad Layout

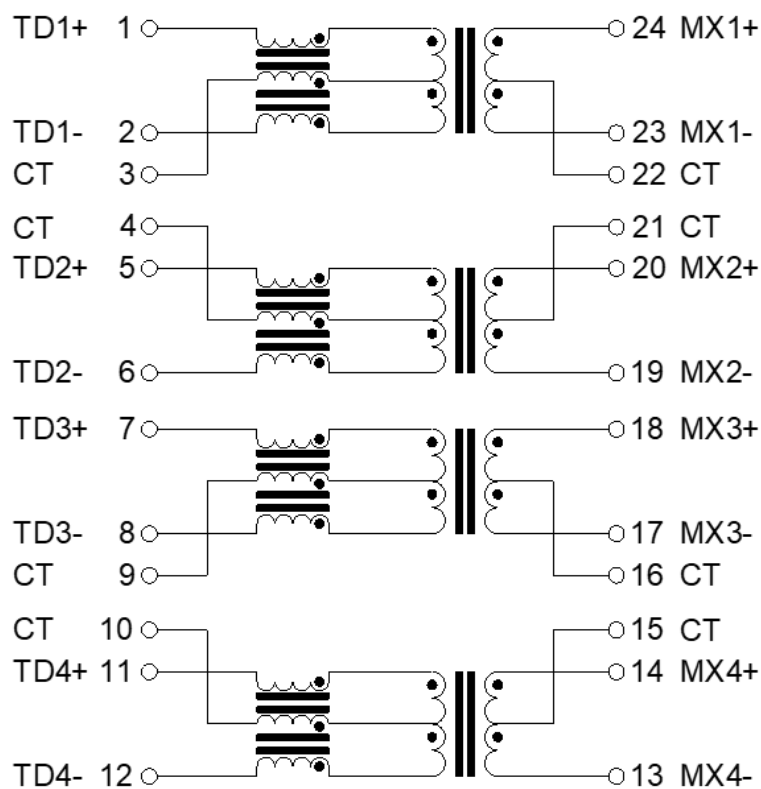


Suggested pad layout

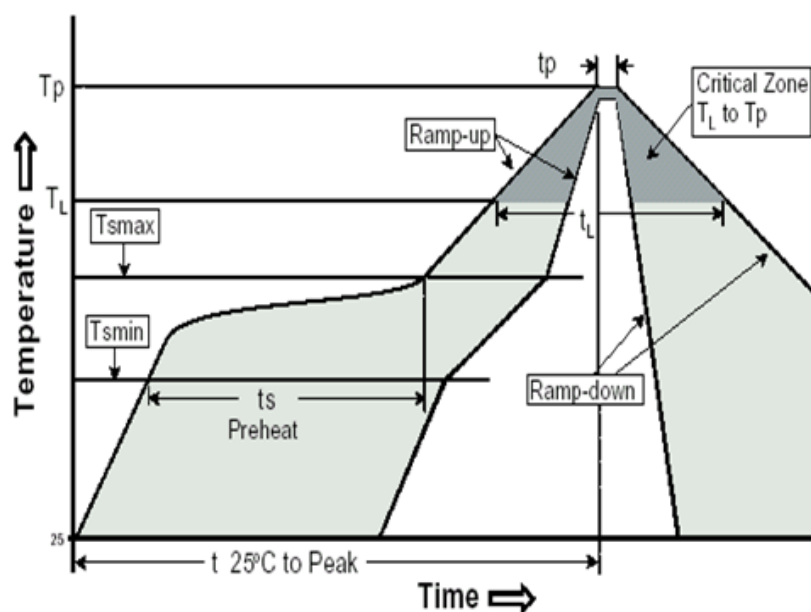
Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

## 4. Electrical

### 4.1 Electrical Drawings



### 4.2 Profile of Reflow Solder



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate ( $T_{smin}$ to $T_p$ )	3°C /second max.
<b>Preheat</b> -Temperature Min ( $T_{smin}$ ) -Temperature Max ( $T_{smax}$ ) -Time ( $t_{smin}$ to $t_{smax}$ )	150°C 200°C 60-120 seconds
<b>Time maintained above:</b> -Temperature ( $T_L$ ) -Time ( $t_L$ )	217°C 60-150 seconds
Peak/Classification Temperature ( $T_p$ )	240°C MAX
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.

# Changelog

Changelog for the datasheet

SPE-23-8-336 – TMY85ANL

Revision: A (Original First Release)	
Date:	2023-11-30
Notes:	
Author:	Javier Vasena

Previous Revisions




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