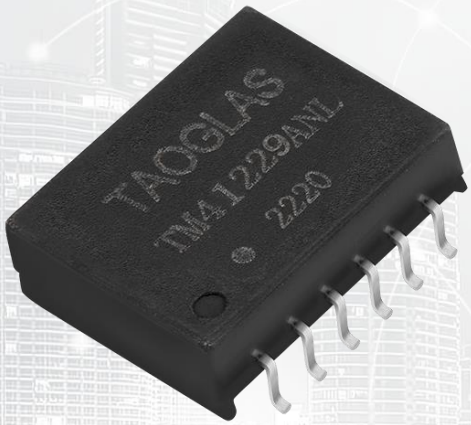
TAOGLAS



Datasheet

BMS Transformer/CMC

Part No:
TM41229ANL

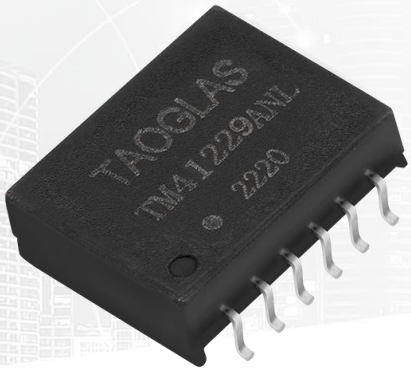
Description:

Transformer with Common Mode Choke for Battery Management System
12pin SMT

Features:

AEC-Q200
Automotive grade
RoHS & REACH Compliant

1. Introduction



The Taoglas TM41229ANL is a BMS Transformer with Common Mode Choke of 12pins, designed to work in automotive environmental conditions with an operating temperature of -40°C to +125°C.

The Taoglas Magnetic Product Team have over fifteen years of experience in magnetics design and high-quality manufacturing. With ever expanding product lines, we provide trusted products and services to our customers within a wide range of applications such as:

- Electric Vehicle
- Energy Storage Systems
- Data Center UPS
- Solar energy storage
- Renewable Energy

Taoglas offers a full line of BMS transformers, and common mode chokes for energy storage systems that require serial port safety isolation and EMI noise suppression. These transformers are designed for battery systems with large voltage differences that demand component-to-component isolation.

The Taoglas BMS Transformers portfolio is intended to perform in highly energy-efficiency modern vehicles such as EVs, HEVs, and PHEVs.

All Taoglas parts meet AEC-Q200 requirements for automotive applications. 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 OCL	150µH MIN @ 100KHz 0.1V 8mA DC Bias	
Turns Ratio (±3%)	TX=1CT: 1CT	RX=1CT: 1CT
Creepage Distance	>10 mm	
Primary Leakage	0.5uH Max @ 100Khz, 0.1Vrms	
Cw/w	35pF Max. Primary to Secondary	
DCR	Primary: 0.45Ω Max, Secondary: 0.85Ω Max	
Insertion Loss	0.25dB MAX @ 4Mhz	
Return Loss (Z OUT = 100 OHM ±1%)	20dB MIN @ 4Mhz	
Crosstalk Adjacent Channels	-50dB MIN @ 4Mhz	
Common Mode Rejection Ratio	-35dB MIN @ 1-10Mhz	
	-20dB MIN @ 10-1000Mhz	
Operating Voltage	1600 VDC	
Hi-Pot	4300Vdc Max	

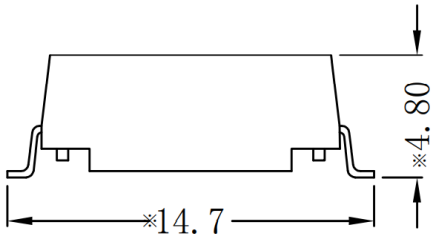
Environmental Specifications	
Operating Temperature	-40°C TO +125°C

Compliance
UL recognized - FILE NO. E528697
RoHS Compliant

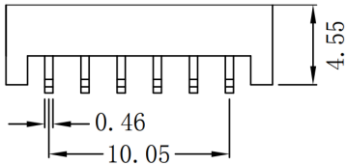
Storage Requirements	
Humidity	Storage Temperature
MSL - 1	-40°C TO +85°C

3. Mechanical

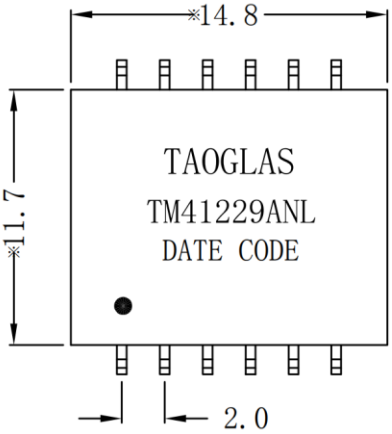
3.1 Mechanical Drawings



Front View



Left View

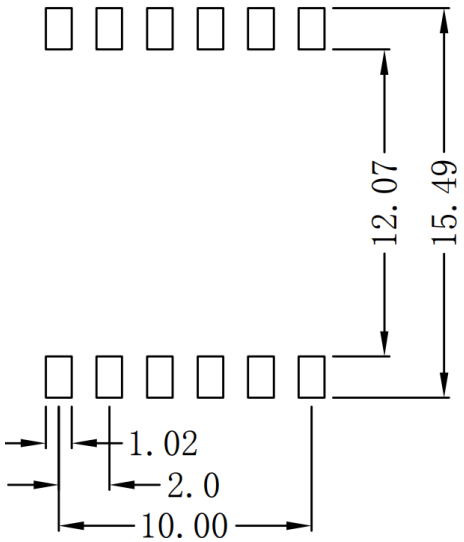


Top View

Mechanical Specifications	
Length	14.8 mm
Width	14.7 mm
Height	4.80 mm
Mounting Style	Surface Mount (SMT)

Dimensions are in millimeters with the following tolerances: X.XX = ±0.25

3.2 Pad Layout

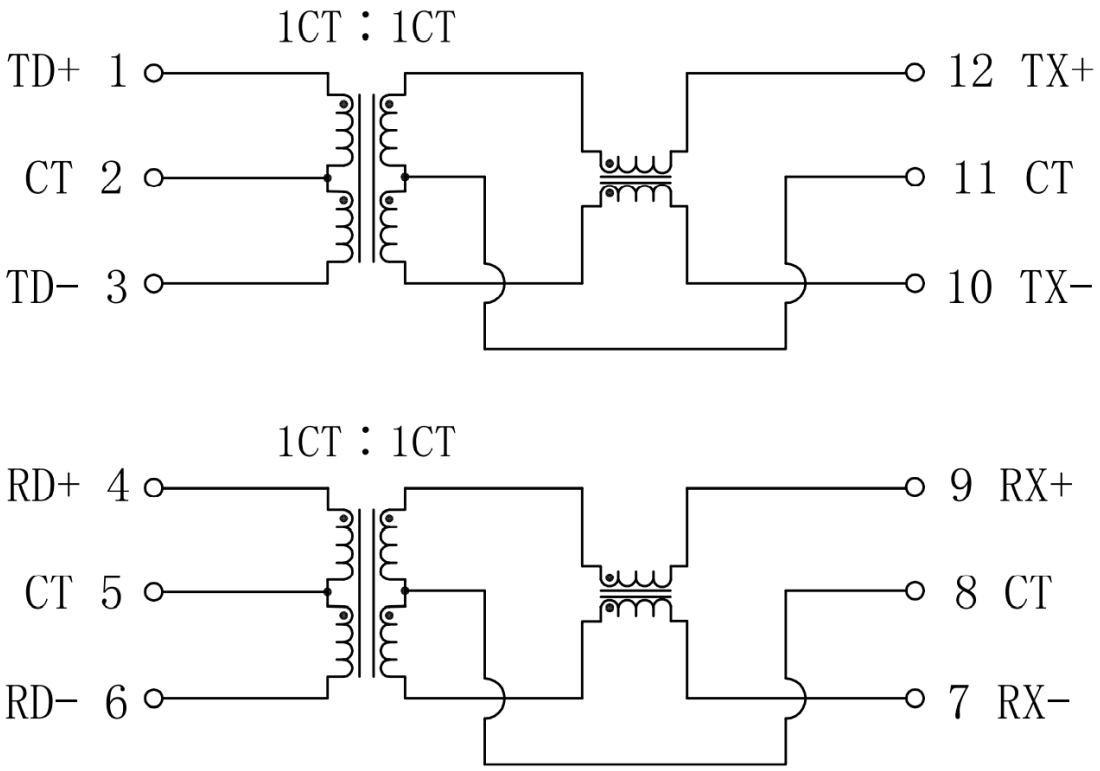


Suggested pad layout

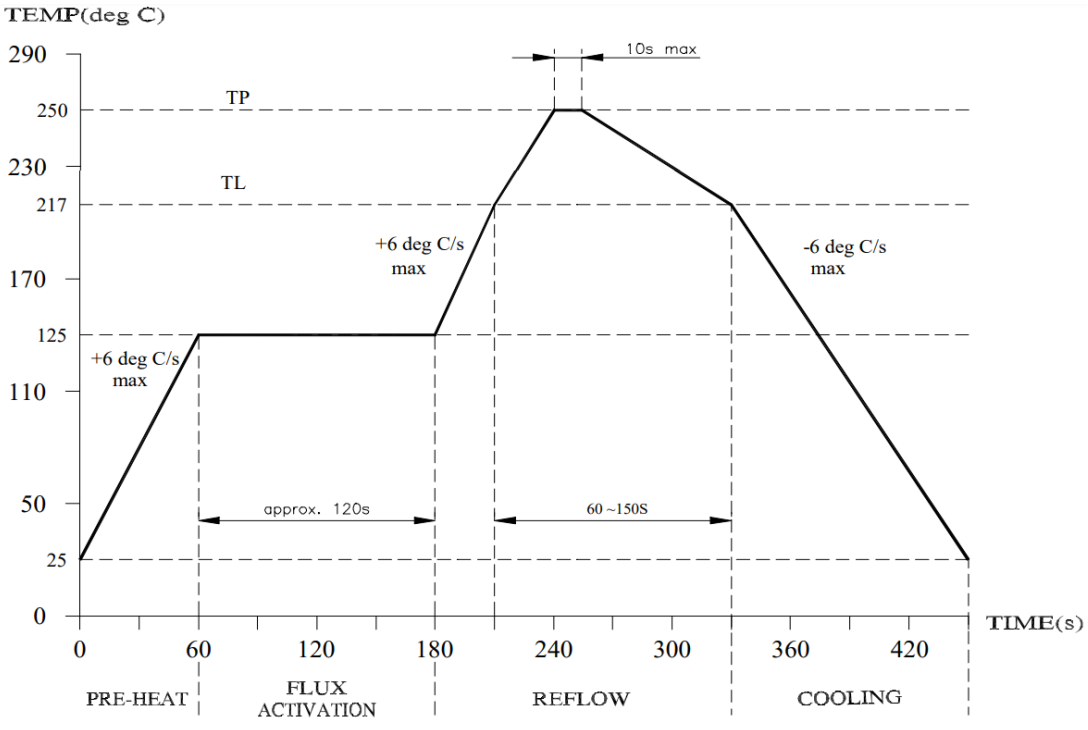
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings



4.2 Profile of Reflow Solder



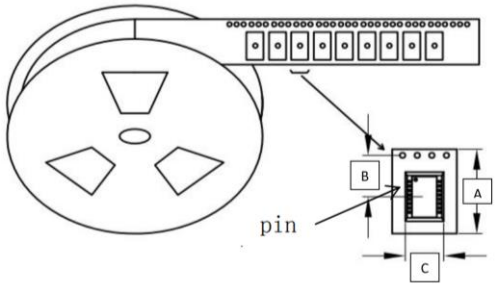
5. Packaging and Storage

5.1 SPQ

600 pcs/reel

A (Carrier Tape Width): 24±0.3 mm
B (Sprocket hole to Cavity center): 11.5±0.2 mm
C (Cavity width): 15.3±0.2 mm

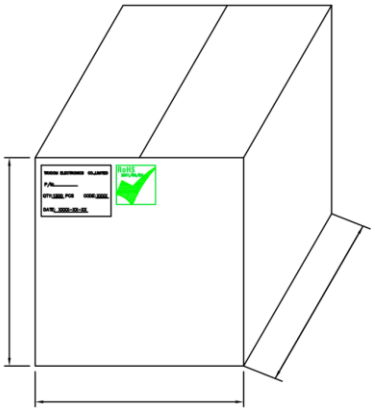
Reel weight: 1000 g



1CTN = 6 reels = 3600 pcs

Carton dimensions: 370*370*250mm

Carton Weight: 6 kg



Changelog

Changelog for the datasheet

SPE-22-8-040 – TM41229ANL

Revision: A (Original First Release)	
Date:	2022-11-08
Notes:	
Author:	Javier Vasena

Previous Revisions

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