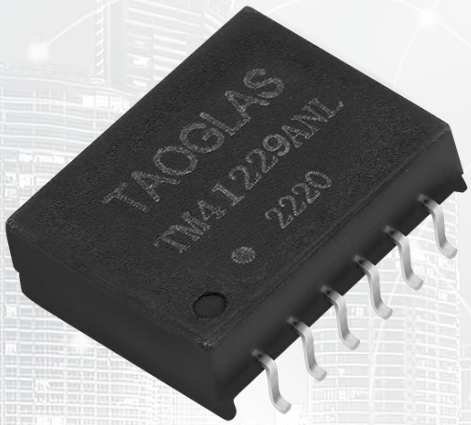
TAOGLAS



Datasheet

BMS Transformer/CMC

Part No:
TM41229ANL

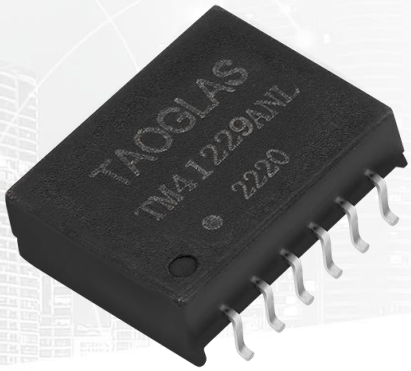
Description:

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

Features:

Working voltage 1000VDC
Dual Channel
RoHS & REACH Compliant

1. Introduction



Featuring a compatible footprint with industry BMS Transformers, and designed to work in demanding automotive environmental conditions, the Taoglas TM41229ANL is a BMS Transformer with Common Mode Choke of 12 pins and Operation voltage of 1000VDC.

The Taoglas Magnetics Product Team have over fifteen years of experience in magnetics design and high-quality manufacturing. With ever expanding portfolio, 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.

2. Specifications

Electrical Performance @25°C	
OCL	150µH~450µH @100Khz,0.1V (-40°C to +125°C)
Turns Ratio (±3%)	1:1
Leakage Inductance	0.5µH Max @ 100KHz, 0.1V
DCR	0.70 ohm Max @Transformer side
	1.20 ohm Max @CM choke side
Insertion Loss	-0.25dB Max @ 4MHz
Return Loss (Z OUT = 100 OHM ±1%)	-20dB Min @ 4MHz
Crosstalk	-50dB Min @ 4MHz
Common Mode Rejection Ratio	-35dB Min @ 1-10MHz
	-20dB Min @ 10-1000MHz
Working Voltage	1000VDC for 15 years
Hi-Pot	4300VDC, 1mA, 60S

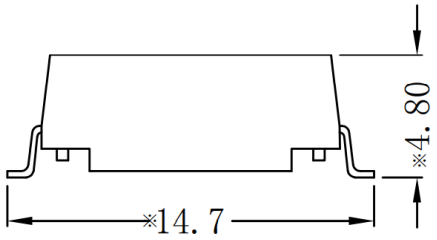
Environmental Specifications	
Operating Temperature	-40°C TO +125°C

Compliance
UL recognized - FILE NO. E528697
RoHS Compliant

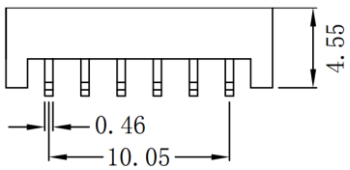
Storage Requirements	
Humidity	MSL - 1
Storage Temperature	-50°C TO +125°C

3. Mechanical

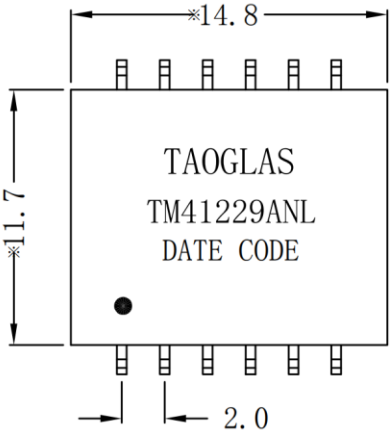
3.1 Mechanical Drawings



Front View



Left View

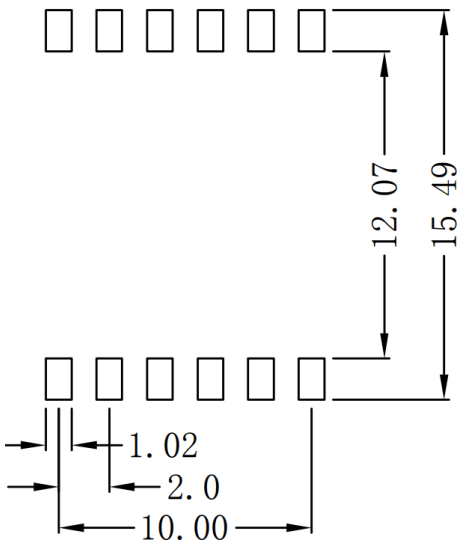


Top View

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

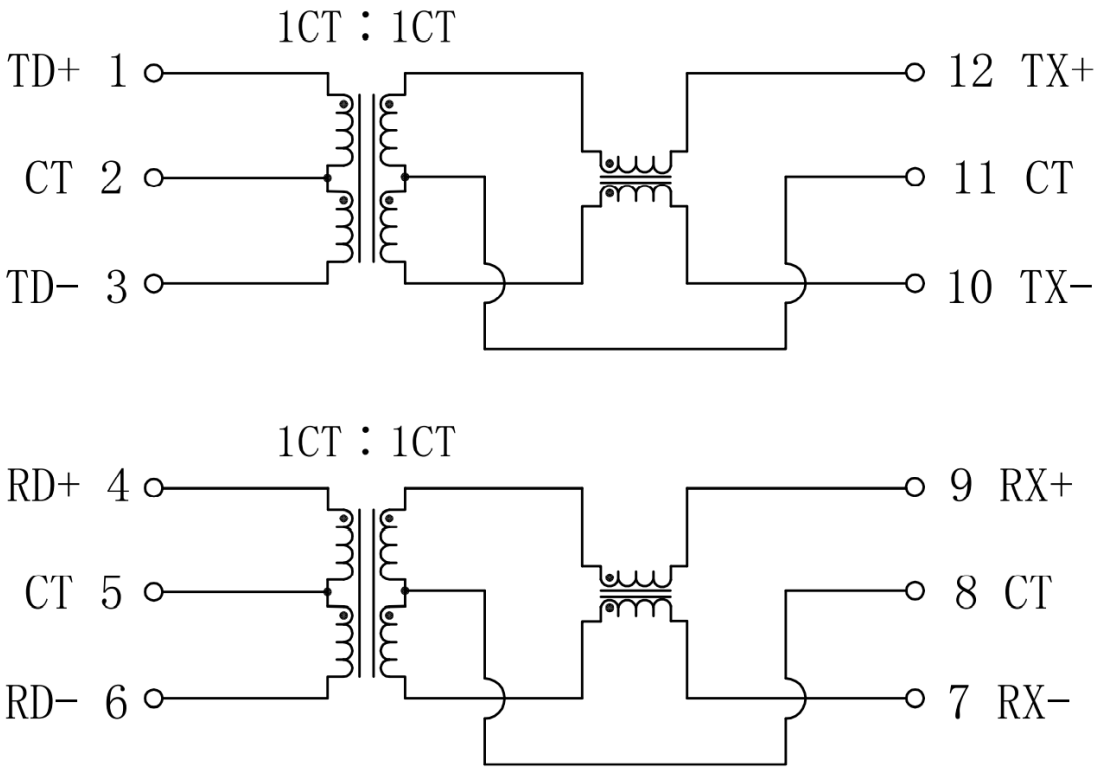


Suggested pad layout

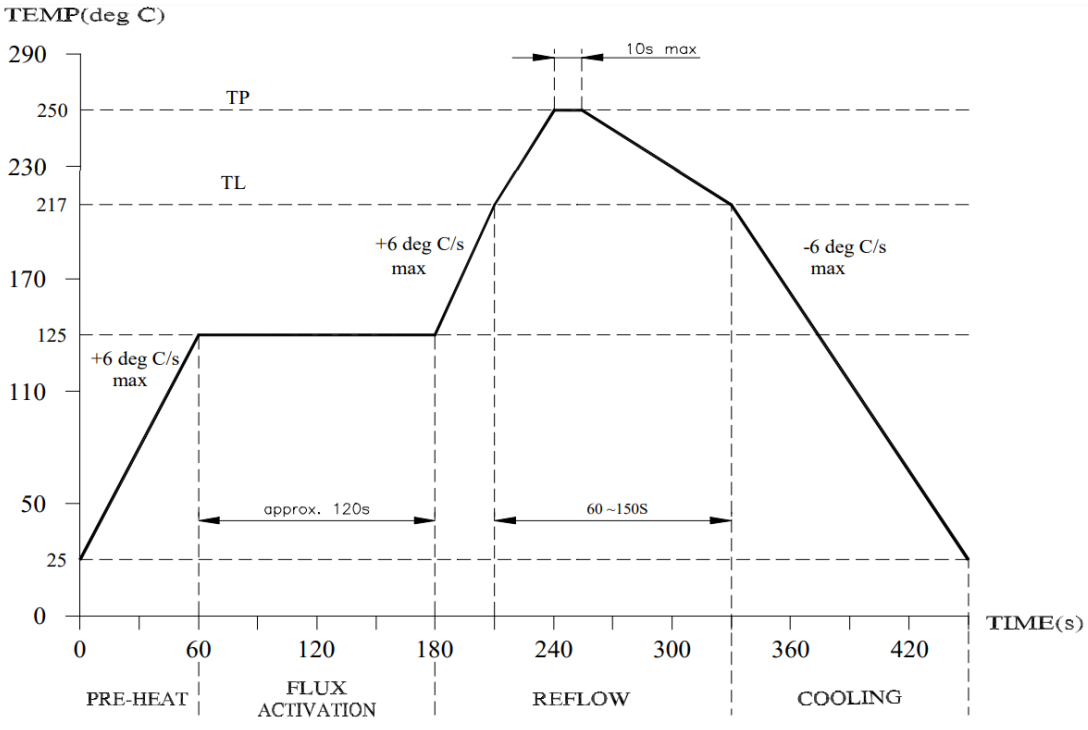
Dimensions are in millimeters with the following tolerances: X.XX = ±0.10

4. Electrical

4.1 Electrical Drawings



4.2 Profile of Reflow Solder



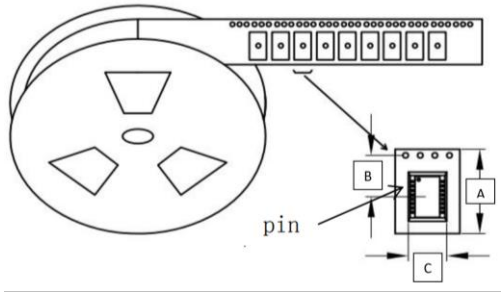
5. Packaging and Storage

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

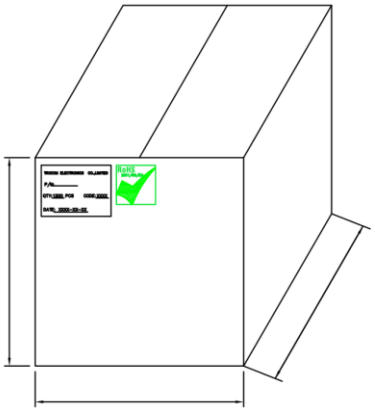
Reel weight: 1000 g



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:	
Date:	2023-07-22
Notes:	Spec update
Author:	Javier Vasena

Previous Revisions

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

Revision: B	
Date:	2023-04-27
Notes:	Change from BMS Transformer class to LAN Transformer 10/100 Base-T
Author:	Javier Vasena

Revision: C	
Date:	2023-07-16
Notes:	Change from BMS Transformer class
Author:	Javier Vasena

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