



# TAOGLAS®



# Datasheet

## BMS Transformer/CMC

**Part No:**  
TM40601ANL

### Description:

Transformer with Common Mode Choke for Battery Management System  
6pin and SMT

### Features:

AEC-Q200  
Automotive grade  
RoHS & REACH Compliant

1. Introduction	3
2. Specifications	4
3. Mechanical	5
4. Electrical	6
5. Packaging & Storage	7
<hr/>	
Changelog	8

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# 1. Introduction



The Taoglas TM40601ANL is a BMS Transformer with Common Mode Choke of 6pins, designed to work in extreme industrial environmental conditions with operating temperatures of -40°C to +125°C.

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.

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	> 5 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
Common Mode Rejection Ratio	-35dB MIN @ 1-10Mhz
	-20dB MIN @ 10-1000Mhz
Operating Voltage	1000 VDC
Hi-Pot	4300Vdc Max

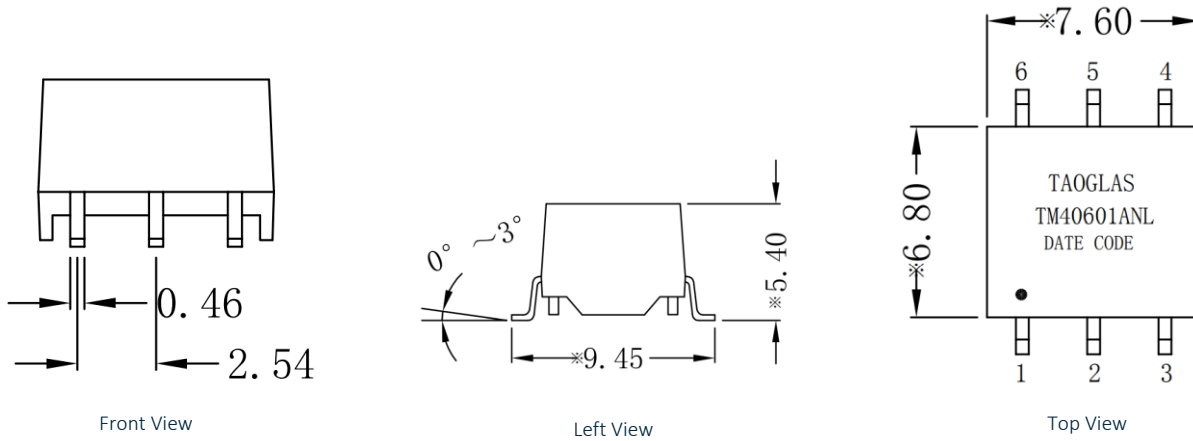
Environmental Specifications	
Operating Temperature	-40°C TO +125°C

Compliance	
UL recognized - FILE NO. E528697	
RoHS Compliant	

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

## 3. Mechanical

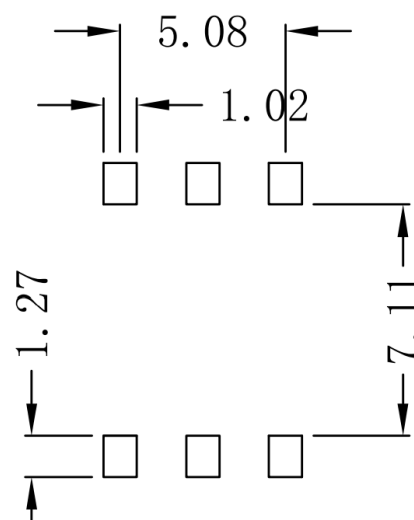
### 3.1 Mechanical Drawings



Mechanical Specifications	
Length	7.60 mm
Width	9.45 mm
Height	5.40 mm
Mounting Style	Surface Mount (SMT)

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

### 3.2 Pad Layout

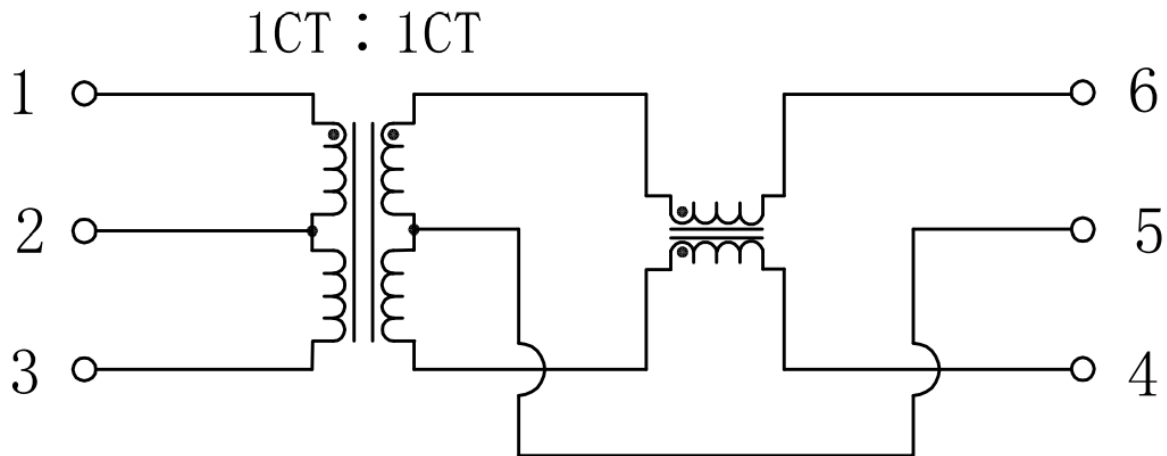


Suggested Pad layout

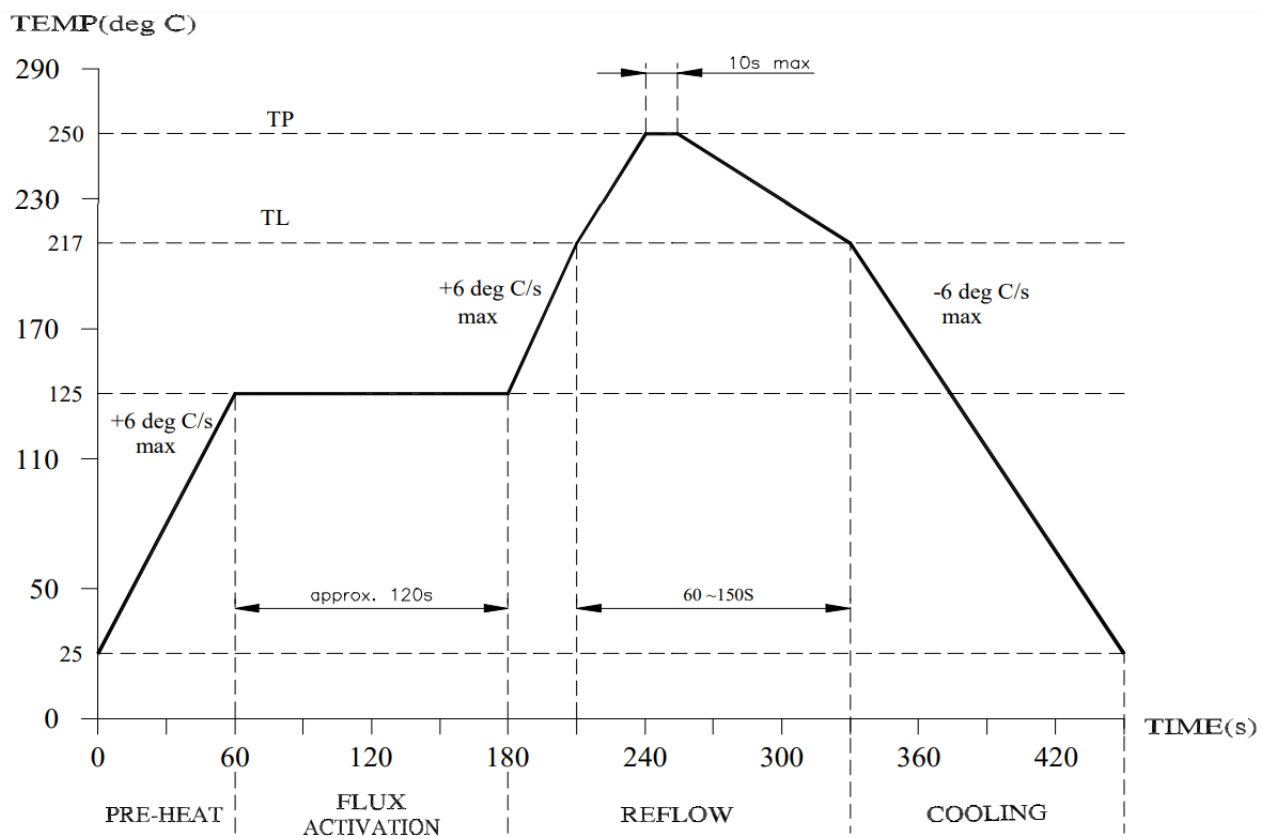
Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$

## 4. Electrical

### 4.1 Electrical Drawings



### 4.2 Profile of Reflow Solder



## 5. Packaging and Storage

### 5.1 SPQ

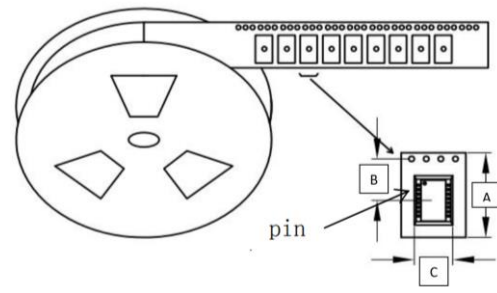
1000 pcs/reel

A (Carrier Tape Width):  $24 \pm 0.3$  mm

B (Sprocket hole to Cavity center):  $11.5 \pm 0.2$  mm

C (Cavity width):  $9.9 \pm 0.2$  mm

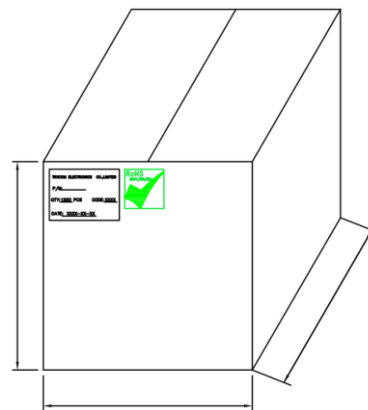
Reel weight: 850 g



1CTN = 6 reels = 6000 pcs

Carton dimensions: 370\*370\*250 mm

Carton Weight: 7 kg



# Changelog

Changelog for the datasheet

**SPE-22-8-037 – TM40601ANL**

**Revision: A (Original First Release)**

Date:	2022-11-08
Notes:	
Author:	Javier Vasena

**Previous Revisions**




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