



### **BMS Transformer/CMC**

Part No: TMU06C02

#### **Description:**

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

#### **Features:**

AEC-Q200 IATF 196949 Automotive grade Single channel



	1.	Introduction	3
	2.	Specifications	4
	3.	Mechanical	5
	4.	Electrical	6
_	5.	Packaging	7
		Changelog	8

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### 1. Introduction



Featuring a compatible footprint with industry BMS Transformers, and designed to work in demanding automotive environmental conditions, the Taoglas TMU06C02 is a BMS Transformer with Common Mode Choke of 6 pins and Single channel.

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					
OCL	150uH Min,450uH Max. @10	00KHz/0.1V (-40°C to +125°C)			
Leakage Inductance	0.5uH Max. @	0100KHz/0.1V			
Turns Ratio (±2%)	TX=1CT: 1CT	RX=1CT: 1CT			
D.C.R:	0.45 ohm Max. @Transformer side				
	0.80 ohm Max.	@CM choke side			
Insertion Loss	-1.2dB Ma	ax@4MHz			
Return Loss	-6dB Min @4MI	Hz (Z out= 100Ω)			
CMRR	-50dB Typ (	@1-100MHz			
Hi-Pot	6000VDC or 45	00VAC,1mA,60S			
Design Construction	Reinforced insulation per IEC62477-1, IEC60664-1.IEC62368-1				
	Working voltage up to 1500VDC				
	Creepage distance>15mm,	Clearance distance>14mm.			
	Pollution Degree $\ { m I\hspace{1em}I}$ , Material group CTI				
	Overvoltage Category Ⅲ, up to 2km	or 4km (IEC60664) above sea level.			

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

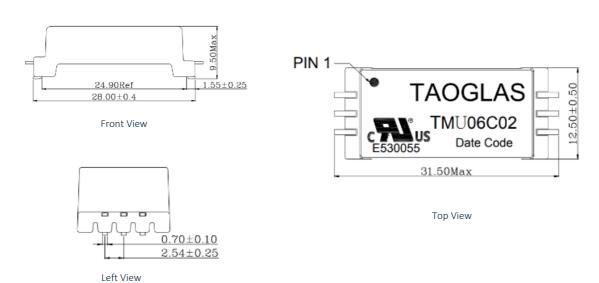
Compliance
UL recognized - FILE NO. E528697
RoHS Compliant
J-STD-020

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



## 3. Mechanical

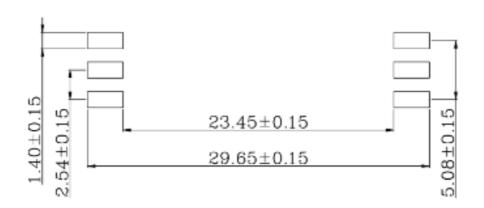
### 3.1 Mechanical Drawings



Mechanical Specifications				
Length	15.1 mm			
Width	10 mm			
Height	4 mm			
Mounting Style	Surface Mount (SMT)			

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

### 3.2 Pad Layout

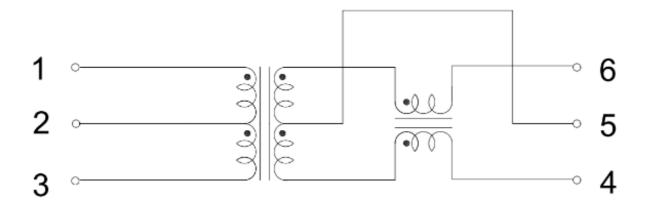


 $\label{eq:Suggested} Suggested \ pad \ layout$  Dimensions are in millimeters with the following tolerances: X.XX =  $\pm 0.10$ 

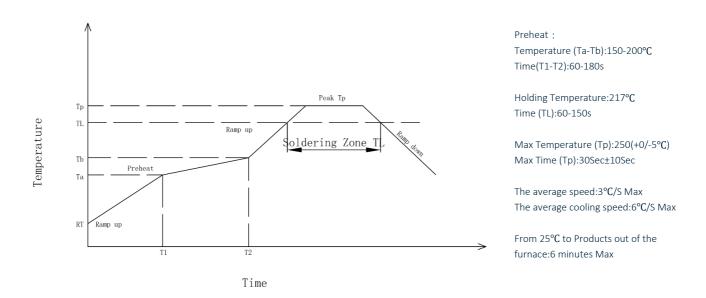


## 4. Electrical

### 4.1 Electrical Drawings



### 4.2 Profile of Reflow Solder





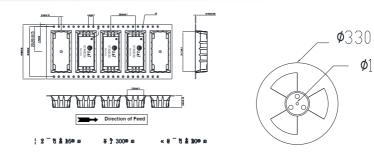
## 5. Packaging

### **SPQ**

1 reel = 300 pcs

Reel (mm): 44x40.4x13

Weight (gr): 1300











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1 Carton = 5 reels = 1500 pcs

Carton dimensions: 373\*365\*284 mm

Carton Weight: 8.04 kg



### Label

Taoglas Limited

P/N NO: XXXXXXXX

QYT: XXX PCS DC: XXXX

SPQ Label (8x5cm)

Taoglas Limited

P/N NO: XXXXXXXX

DATE: XXXX-XX-XX

PO: XXXXXXXX B/N: XXXXXXXX

QYT: XXX PCS DC: XXXX

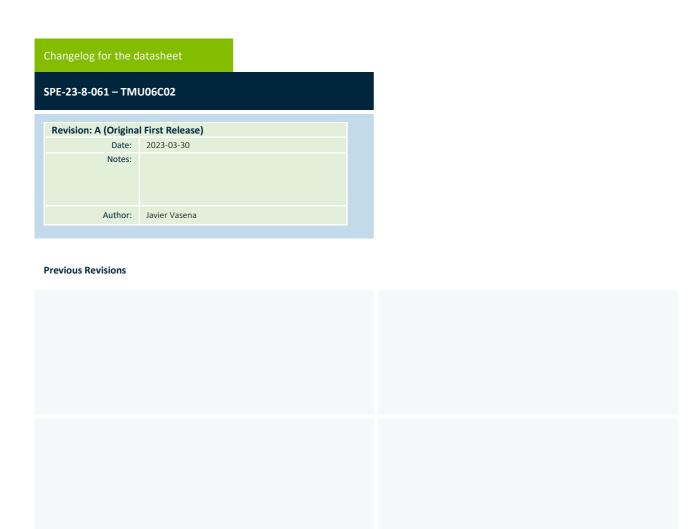
DATE: XXXX-XX-XX

Carton Label (8x5cm)

www.taoglas.com SPE-23-8-061-A



# Changelog







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