BOURNS®

SAMPLE PRODUCT

MAG-3002008

Gate Driver Transformer

*RoHS COMPLIANT

Features

- Designed for STM32G4 microcontrollers
- Basic insulation
- Compact, low profile surface mount (SMT) design
- Operating frequency range: 30 kHz to 300 kHz
- Operating temperature: -40 °C to +125 °C
- RoHS compliant*

Applications

- Industrial devices
- Transistor gate drive power supplies
- Inverter circuits
- Motor drive circuits

Sustainability

- Small size reduces material use
- High efficiency, low power loss
- Energy-saving low power design
- Corrosion-resistant for longevity
- ISO 14001, low impact energy
- Responsibly sourced and produced

The information provided in this pre-production sample product data sheet is for reference only and is intended to accelerate initial design and prototyping phases. For a tailored, production-ready solution, contact Bourns for further discussion.

Product Overview

Bourns® Model MAG-3002008 is a low profile surface mount (SMT) gate driver transformer developed as part of the STMicroelectronics STM32G4 reference design platform. Packaged in a compact 12.7 × 11 × 6.5 mm footprint, this transformer supports operating frequencies from 30 kHz to 300 kHz and provides basic insulation for reliable transistor gate drive applications. This transformer is well suited for industrial equipment, transistor gate drive power supplies, and inverter circuits.

Custom configurations are available upon request.

Electrical Specifications @ 25 °C

Specification	Value
Inductance @ 250K / 1 V	
1-2	150 µH
Tolerance	±35 %
DCR	
1-2	250 mΩ max.
5-6 / 3-4	400 mΩ max.
Turns Ratio	
1-2 : 5-6 : 3-4	14 : 24 : 24 ±5 %
Hi-Pot (3 mA Max.)	
Pri-Sec	2000 VAC, 2 sec.
Pri-Core	1000 VAC, 2 sec.
Sec-Core	1000 VAC, 2 sec.

General Specifications

Specification	Value
Operating Temperature (Including Self-Temperature Rise)	-40 °C to +125 °C
Storage Temperature	-25 °C to +85 °C
Moisture Sensitivity Level (MSL)	1
Weight per Part (Typical)	1.0 g

Materials

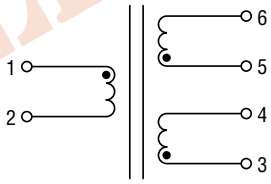
Specification	Value
Bobbin	Phenolic
Core	Ferrite
Wire	Copper/Fully Insulated
Terminal Finish	Tin
Glue	Epoxy

How to Order

MAG-3002008

Model

Electrical Schematic



• RELATIVE POLARITY

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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.

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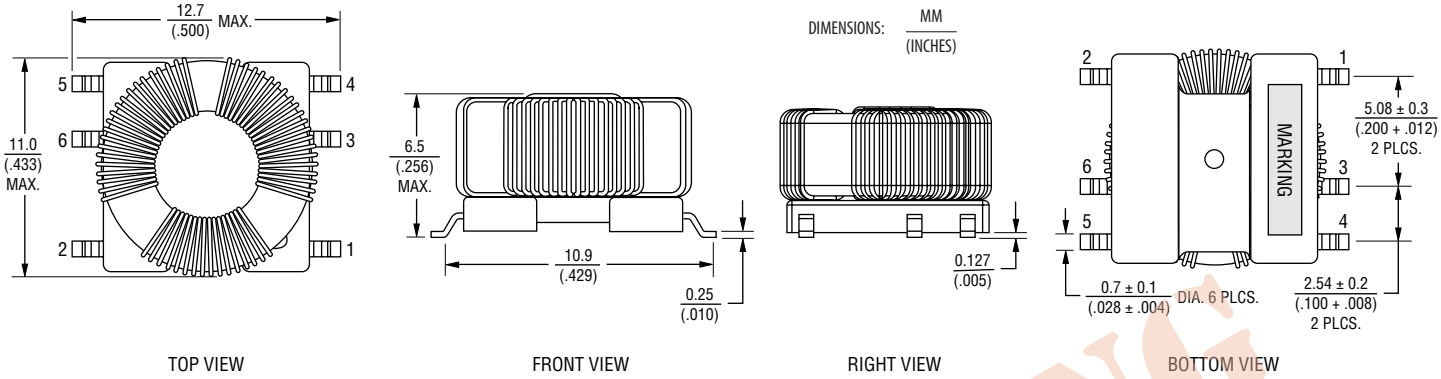
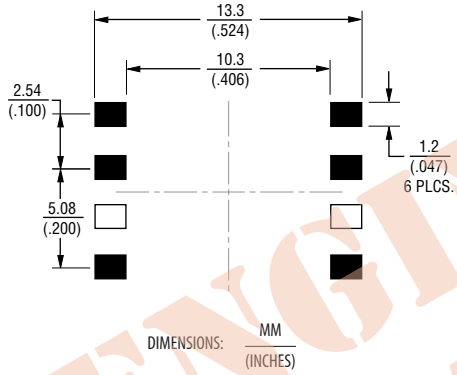
Product Dimensions

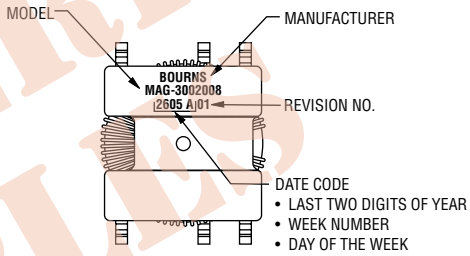


TOP VIEW | FRONT VIEW | RIGHT VIEW | BOTTOM VIEW

Recommended Layout



Typical Part Marking



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