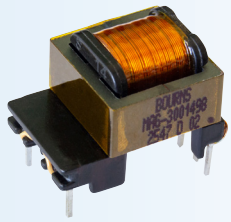
BOURNS®

SAMPLE PRODUCT

MAG-3001498

Flyback Transformer



*RoHS COMPLIANT

Features

- Designed for Texas Instruments' PMP41106 and PMP23464 500 W constant current and constant voltage E-bike charger
- Customized multi-winding structure
- Dielectric strength (primary to secondary): 3,500 VAC
- Saturation current rating of 350 mA
- RoHS compliant*

Applications

- E-bike battery chargers
- Auxiliary power supplies
- LLC resonant DC-DC converters
- Industrial power supplies
- Flyback power converters

Sustainability

- Small size reduces material use
- Eco-logistics-friendly packing
- High efficiency, low power loss
- Energy-saving low-power design
- Responsibly sourced and produced
- Meets EU 94/62/EC standards

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-3001498 is a custom flyback transformer developed for auxiliary power supply applications in offline power conversion systems. Originally designed for the Texas Instruments PMP41106 and later utilized in the PMP23464 e-bike charger reference designs, it provides isolated power delivery for housekeeping and control circuitry within the system architecture. The optimized winding structure, multi-winding configuration, and reinforced isolation support reliable operation across universal-input AC power systems.

Custom electrical and mechanical configurations are available upon request.

Electrical Specifications @ 25 °C

Specification	Value
Inductance 3-5	1.8 mH
Tolerance	±10 %
DCR Max. 3-5 7-6 2-1	 4.0 Ω 0.25 Ω 0.45 Ω
Turns Ratio ±5 % 3-4:4-5:2-1:7-6	 72 : 35 : 18 : 15
Isat 20 % Drop	350 mA
Hi-Pot (5 mA Max.) 3-4,4-5 to Core 3-4,4-5 to 7-6	 500 VAC, 1 sec. 3,500 VAC, 1 sec.

General Specifications

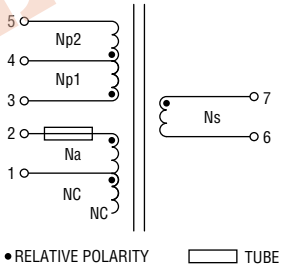
Specification	Value
Operating Temperature (Including Self-Temperature Rise)	-40 °C to +125 °C
Storage Temperature	-25 °C to +85 °C
Moisture Sensitivity Level (MSL)	1
Test Frequency/Voltage	100 kHz / 1 V
Measurement Pins	3-4,4-5,7-6,2-1
Weight per Part (Typical)	5 g

How to Order

MAG-3001498

Model

Electrical Schematic



Materials

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

Contact Information

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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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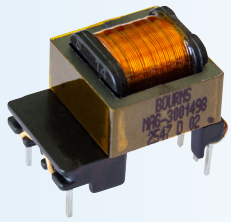

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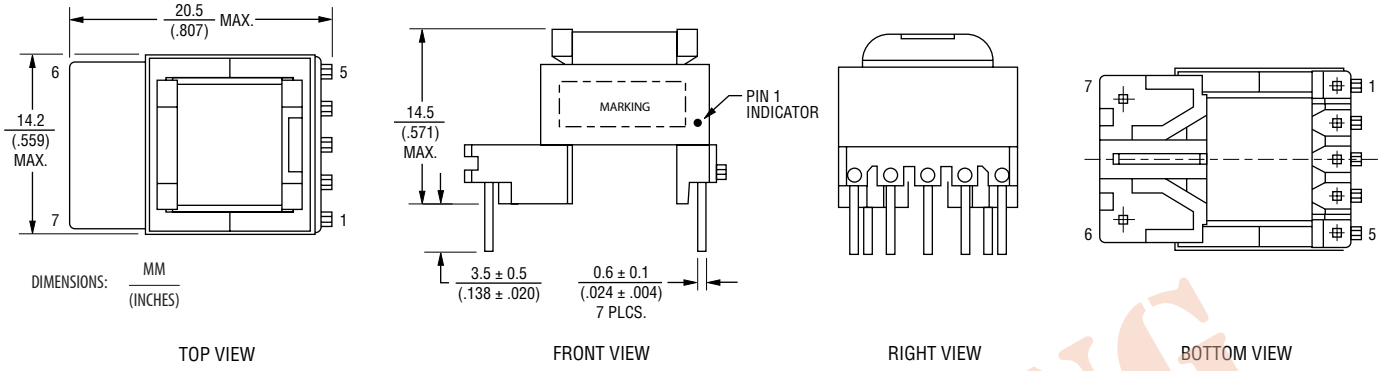
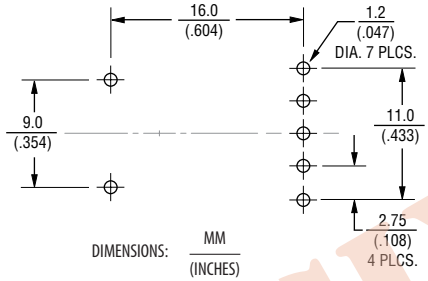
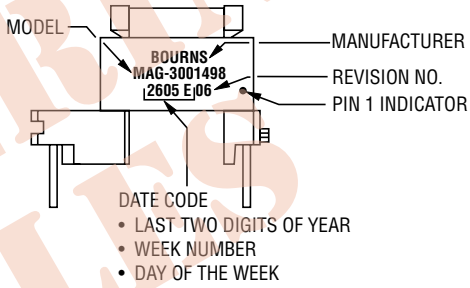
Product Dimensions



Recommended PCB Layout (Top View)

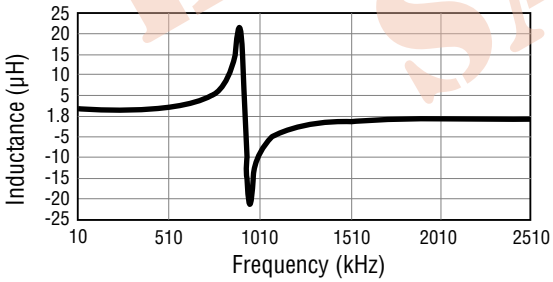


Typical Part Marking



Typical Inductance vs. Frequency Characteristics

Derived under defined electrical specifications. Inductance and Impedance measurements are done in alignment with PMP41106 and PMP23464 reference designs.



Typical Impedance vs. Frequency Characteristics

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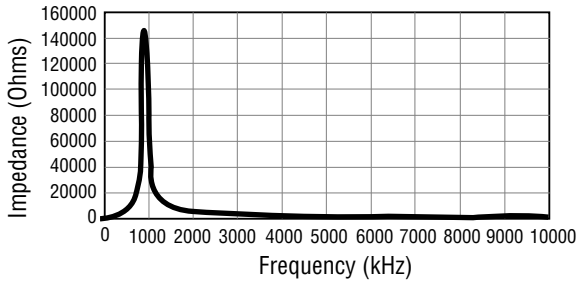

ENGINEERING SAMPLES

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