

Features

- 3 watt gate driver transformer
- 300 kHz to 400 kHz switching frequencies
- High working voltage of 1000 V
- SMT transformer with 10 mm creepage
- Basic insulation per IEC 61558-2 & IEC 60664-1
- Operating temperature: -40 °C to +155 °C
- AEC-Q200 compliant & automotive grade

Applications

- Transistor gate drive power
- Inverter circuits
- Battery management systems
- Motor drives
- Power delivery

HVMA03T100A-ST10S Gate Driver Transformer

General Specifications

Operating Temperature (including self-temperature rise).....	-40 °C to +155 °C
Level of Insulation.....	Basic Insulation
Creepage Distance (Primary to Secondary).....	10 mm
Clearance Distance (Primary to Secondary).....	6 mm
Storage Temperature.....	-40 °C to +85 °C
Moisture Sensitivity Level.....	1

Additional Information

Click these links for more information:

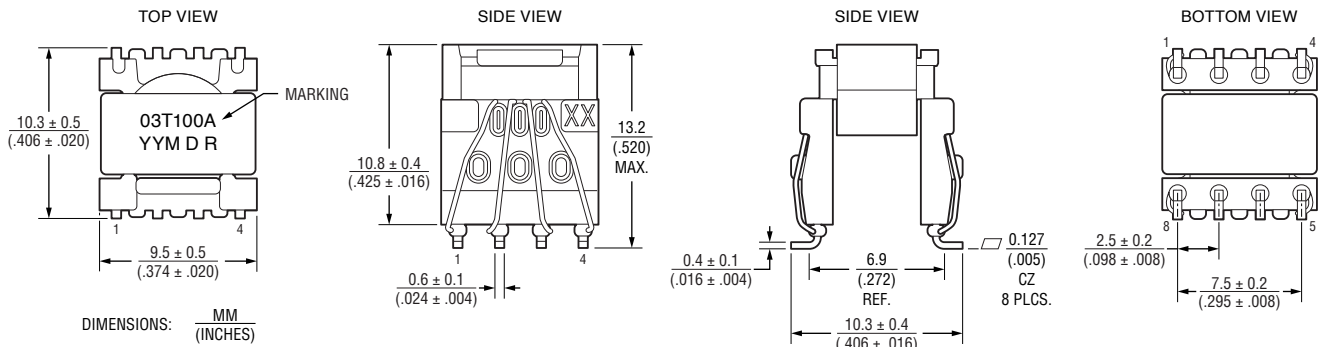


Electrical Specifications @ 25 °C

Bourns Part Number	Primary Inductance @ 100 kHz / 1 V (μH)		Leakage Inductance ¹ (μH)		Turns Ratio	DCR max.		Hi-Pot: 2 sec. / 2 mA	Working Voltage	
	(3-1)	50 min.	(3-1)	1.0 max.		(3-1)	560 mΩ			
HVMA03T100A-ST10S	(3-1)	50 min.	(3-1)	1.0 max.	Pri : Sec1 : Sec2	1 : 2.5 : 0.65 ±5 %	(8-6)	1100 mΩ	4000 V	1000
							(6-5)	380 mΩ		
							(3-1)	560 mΩ		

NOTE: (1) Leakage inductance measured (3-1), shorted (5,6,8) @ 100 kHz, 1 V.

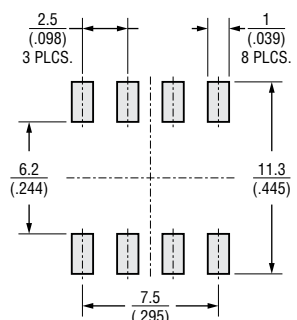
Product Dimensions



Materials

Bobbin Phenolic
 Wire Fully Insulated Copper
 Core Ferrite
 Glue Epoxy

Recommended Layout



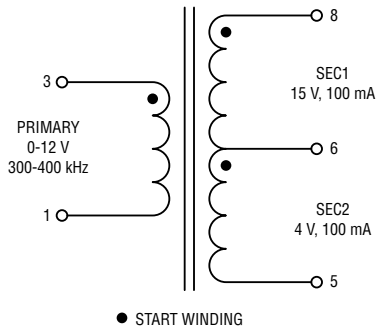
CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

*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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

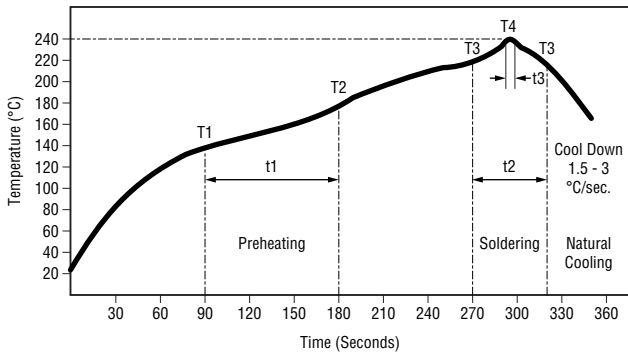
HVMA03T100A-ST10S Gate Driver Transformer



Electrical Schematic



Lead-Free Soldering Profile



Preheating			Soldering		Peak	
Temp.	Time	Temp.	Time	Temp.	Time	
T1	T2	t1	T3	t2	T4	t3
140 °C	180 °C	60-120 sec.	220 °C	40-70 sec.	240-250 °C	5 sec.

How to Order

HVM A 03 T 100 A - ST 10 S

Model _____
HVM = Gate Driver and Flyback Transformer

Compliance _____
A = Automotive Grade

Power Rating _____
03 = 3 W

Topology Type _____
T = Gate Driver and Flyback Transformer

Inductance Value _____
100 = 100 μ H

Series _____
A = Series Number

Size Profile _____
ST = Standard ER9.5

Creepage _____
10 = 10 mm min.

PCB Type _____
S = SMD

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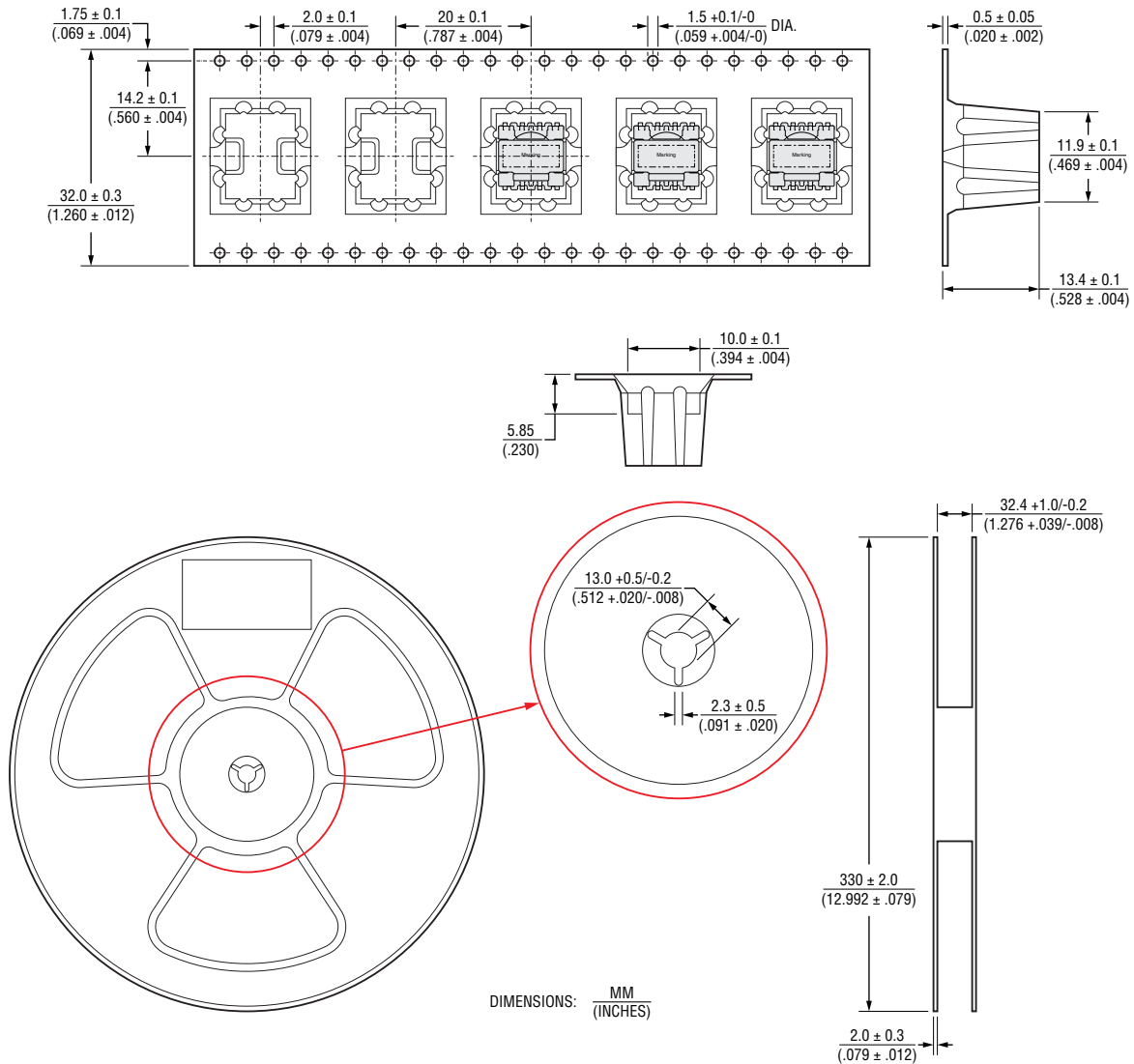
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HVMA03T100A-ST10S Gate Driver Transformer

BOURNS®

Packaging Specifications

HVMA03T100A-ST10S: 230 pcs./reel, 5 reels/carton



BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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