



Features

- 2 watt gate driver transformer
- Switching frequencies 400 kHz
- High working voltage of 800 V
- Surface mount with 8 mm min. creepage
- Basic insulation per IEC 60664-1
- Operating temperature: -40 °C to +125 °C
- AEC-Q200 compliant & automotive grade

Applications

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

HVMA03F4A-LP8S Series – ER9.5 Gate Driver Transformer

General Specifications

Operating Temp.	-40 °C to +125 °C (including self-temperature rise)
Working Voltage	800 V
Level of Insulation.....	Basic
Creepage Distance (Primary to Secondary).....	8 mm
Clearance Distance (Primary to Secondary).....	2 mm min.
Storage Temp	-40 °C to +85 °C
Moisture Sensitivity Level.....	1

Additional Information

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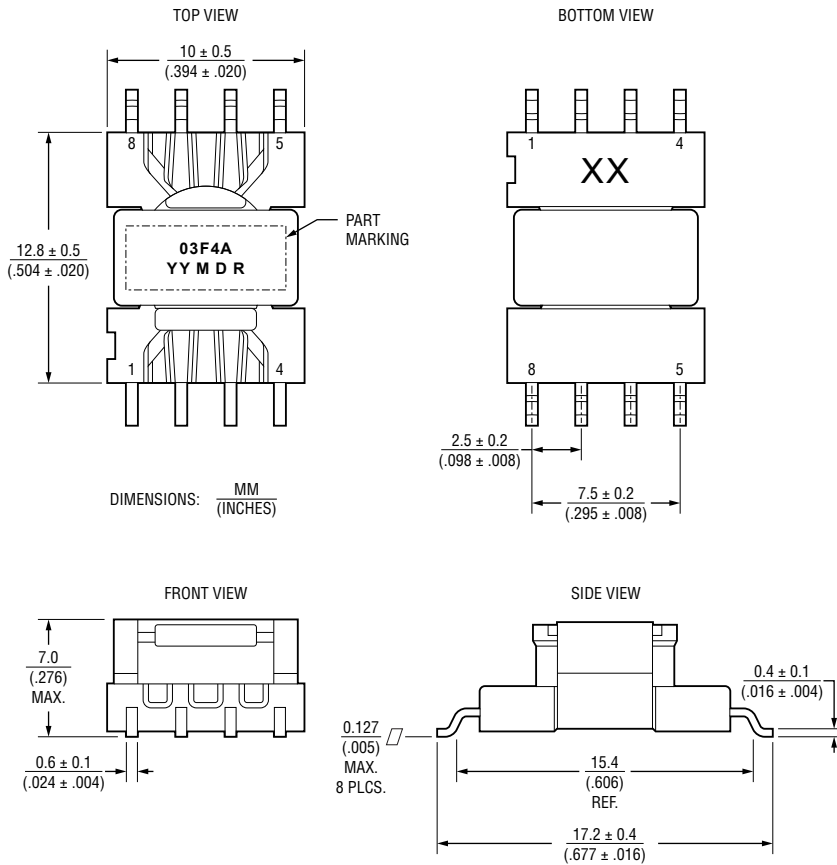
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Electrical Specifications @ 25 °C

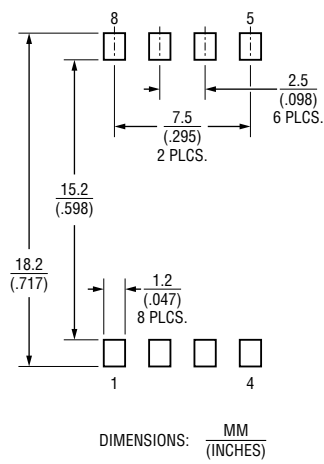
Bourns Part Number	Primary Inductance @ 100 kHz / 0.1 V		Leakage Inductance ¹ (nH)		Turns Ratio		DCR max. (mΩ)		Hi-Pot: 60 sec. / 2 mA	Working Voltage (V)
	(1-4)	4 μH ±15 %	(1-4)	400 nH max.	(1-4) : (8-6) : (6-5)	5 : 1 : 4 ±5 %	(1-4)	120		
HVMA03F4A-LP8S	(1-4)	4 μH ±15 %	(1-4)	400 nH max.	(1-4) : (8-6) : (6-5)	5 : 1 : 4 ±5 %	(1-4)	120	2750 V	800
							(6-5)	100		
							(8-6)	34		

NOTE: (1) Leakage inductance measured (5,8) shorted @ 100 kHz, 0.1 V.

Product Dimensions



Recommended Layout



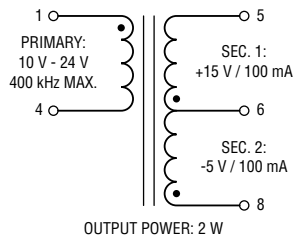
WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*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.

HVMA03F4A-LP8S Series – ER9.5 Gate Driver Transformer



Electrical Schematic



Materials

BobbinPhenolic
WireFully Insulated Copper
Core Ferrite
Glue.....Epoxy

How to Order

HVM A 03 F 4 A - LP 8 S

Model _____
HVM = Gate Driver & Flyback Transf.

Grade _____
A = Automotive Grade

Power Rating _____
03 = 2 W

Topology Type _____
F = Flyback Transformer
T = Gate Drive Transformer

Inductance Value _____
4 = 4 μ H

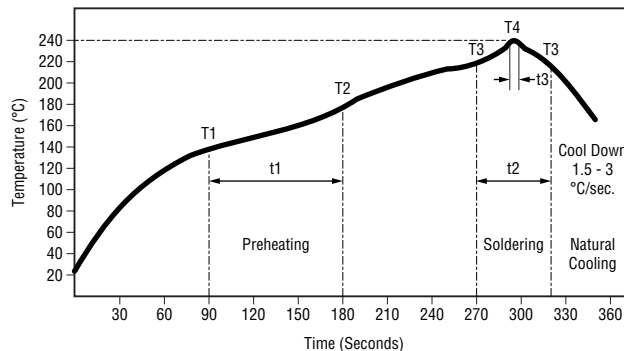
A = Series Number _____

Profile _____
LP = Low Profile ER9.5

Creepage _____
8 = 8 mm

PCB Type _____
S = SMD

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.

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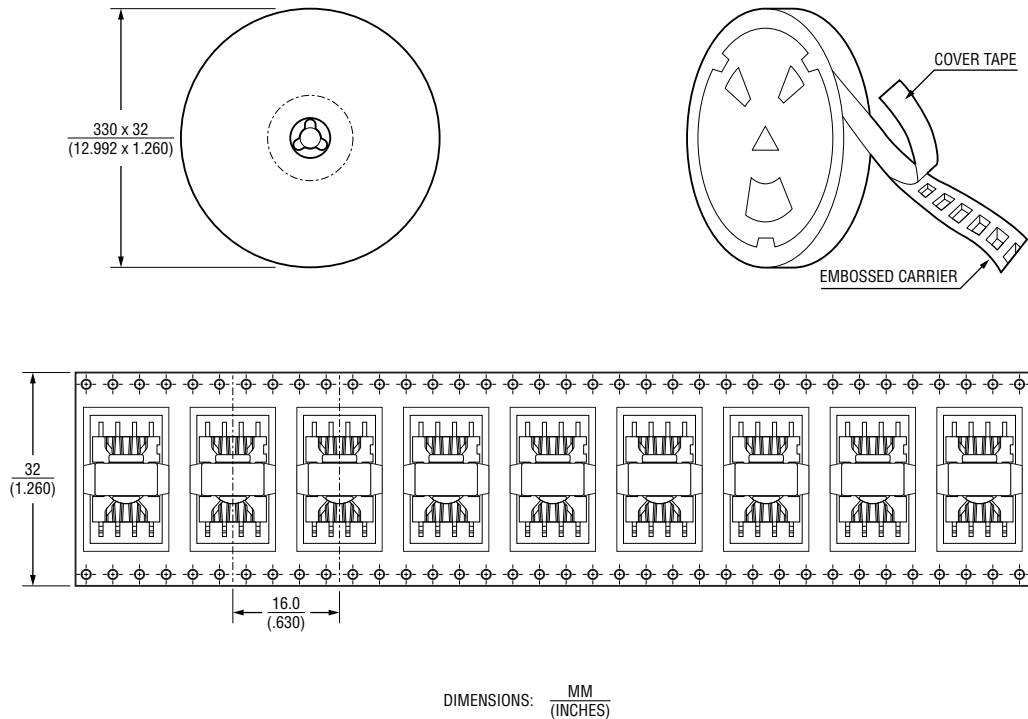
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HVMA03F4A-LP8S Series – ER9.5 Gate Driver Transformer

BOURNS®

Packaging Specifications

HVMA03F4A-LP8S: 600 pcs./reel, 5 reels/carton,
carton: 355 x 355 x 40 mm (14 x 14 x 1.575 inches),
enclosing bag: 380 x 420 mm (15 x 16.5 inches)



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