

## Features

- 3 Watt flyback transformer
- 100 to 400 kHz switching frequency
- 900 V working voltage up to 5000 m
- 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

# HVMA03F40C-ST10S Flyback 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 min.
Clearance Distance (Primary to Secondary)	6 mm min.
Storage Temperature	-40 °C to +85 °C
Moisture Sensitivity Level	1

### Additional Information

Click these links for more information:

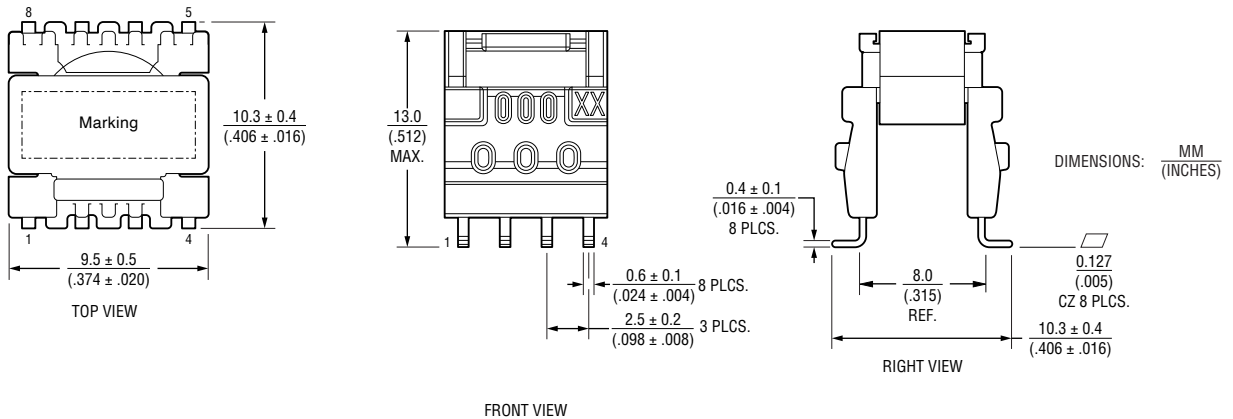


### Electrical Specifications @ 25 °C

Bourns Part Number	Primary Inductance @ 100 kHz / 1 V ±15 % (μH)		Leakage Inductance <sup>1</sup> (μH)		Turns Ratio	DCR max. (Ω)		Hi-Pot: 2 sec. / 1 mA	Working Voltage	
	(1-2)	40	(1-2)	1.1 μH max.		(1-2) : (3-4) : (6-7)	1 : 1 : 1			(1-2)
HVMA03F40C-ST10S	(1-2)	40	(1-2)	1.1 μH max.	(1-2) : (3-4) : (6-7)	1 : 1 : 1	(3-4)	1.4	4000 VAC	900
							(6-7)	1.0		
							(1-2)	1.0		

NOTE: (1) Leakage inductance measured (1-2), shorted all other pins @ 100 kHz, 1 V.

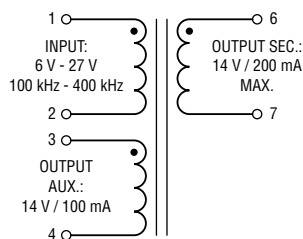
### Product Dimensions



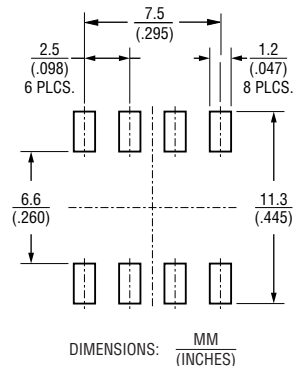
### Materials

Bobbin ..... Phenolic  
 Wire ..... Fully Insulated Copper  
 Core ..... Ferrite  
 Glue ..... Epoxy

### Electrical Schematic



### Recommended Layout



**WARNING**  
 Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice.

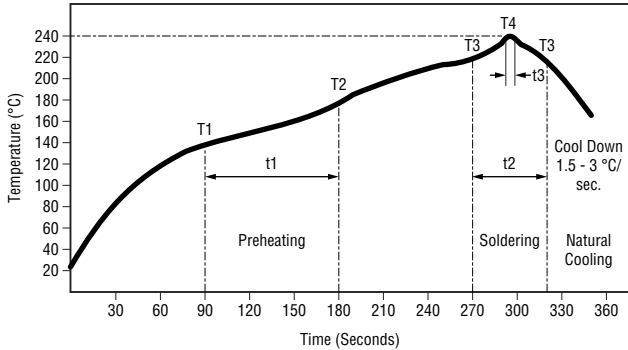
Users should verify actual device performance in their specific applications.

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# HVMA03F40C-ST10S Flyback Transformer



## 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 F 40 C - ST 10 S**

Model \_\_\_\_\_  
 HVM = Flyback Transformer

Compliance \_\_\_\_\_  
 A = Automotive Grade

Power Rating \_\_\_\_\_  
 03 = 3 W

Topology Type \_\_\_\_\_  
 F = Flyback

Inductance Value \_\_\_\_\_  
 40 = 40  $\mu$ H

Series \_\_\_\_\_

Size Profile \_\_\_\_\_  
 ST = Standard ER9.5

Creepage \_\_\_\_\_  
 10 = 10 mm min.

PCB Type \_\_\_\_\_  
 S = SMD

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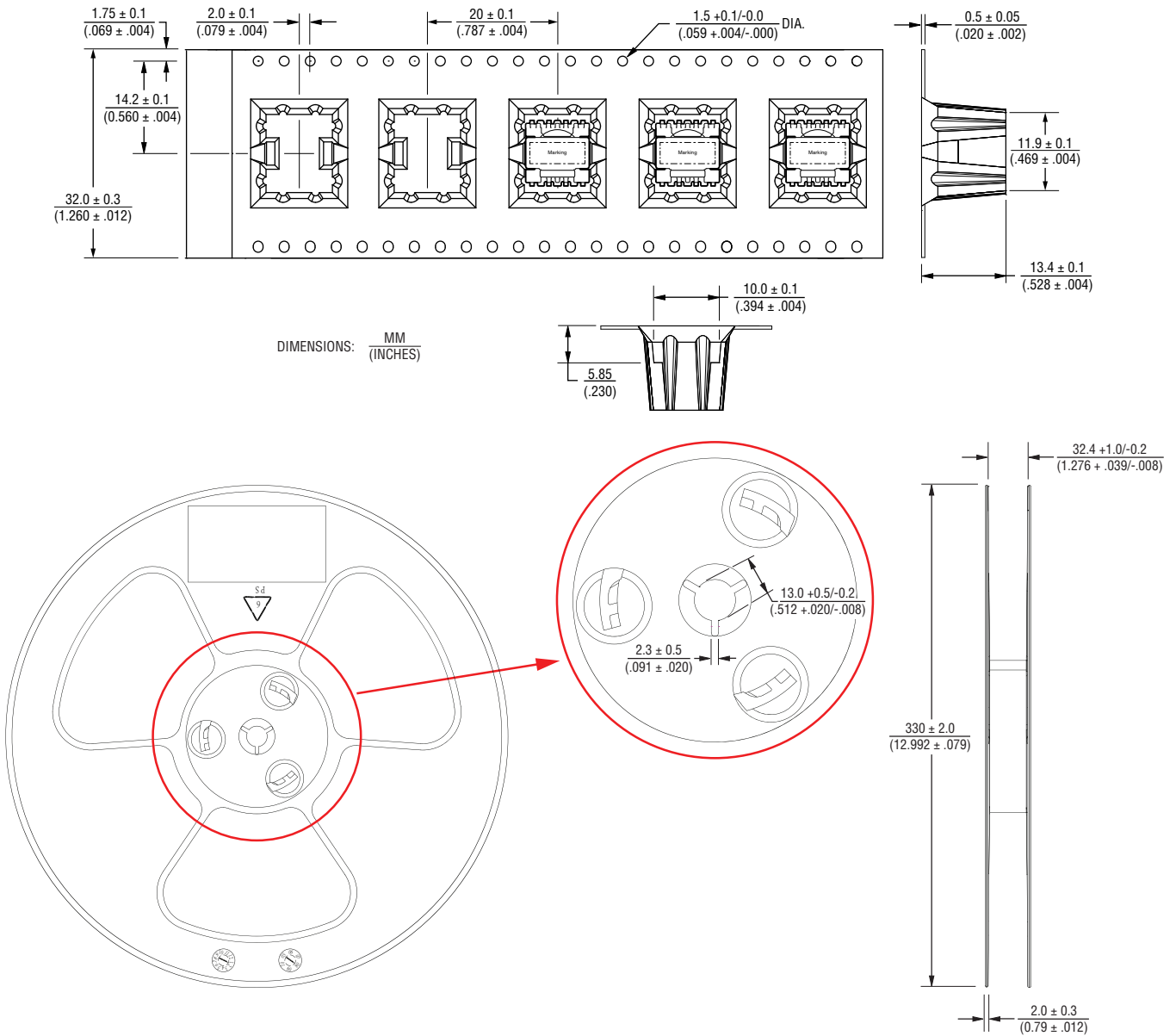
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# HVMA03F40C-ST10S Flyback Transformer

**BOURNS®**

## Packaging Specifications

HVMA03F40C-ST10S: 230 pcs./reel, 5 reels/carton



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