



## Features

- Full automation and compact size
- High voltage isolation
- Reinforced insulation for working voltage of 800 V
- Basic insulation for working voltage of 1000 V
- Creepage distance >8.0 mm
- Clearance distance >8.0 mm

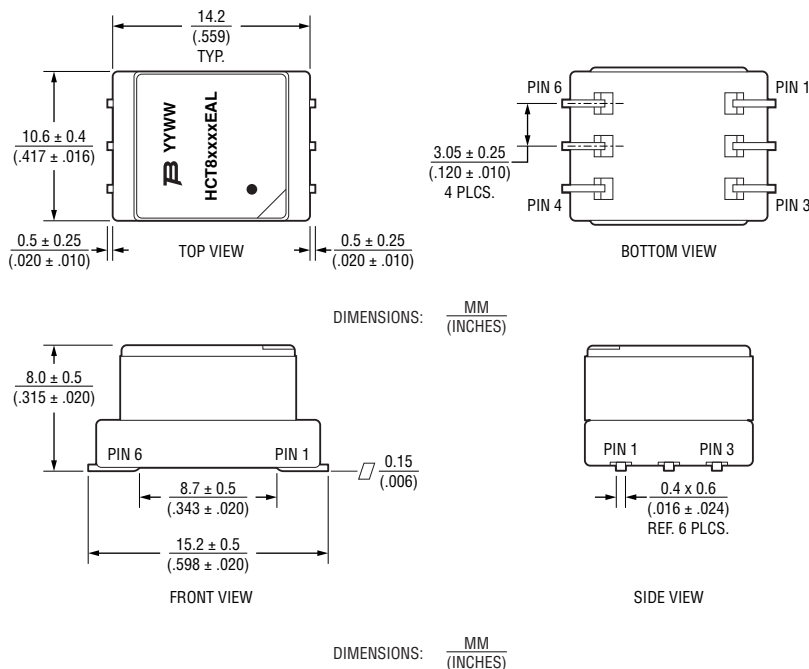
- Overvoltage Category II, Pollution Degree 2, up to 2 km above sea level
- AEC-Q200 compliant
- RoHS\* and REACH Compliant

## HCT8 Series High Clearance and Creepage Transformer

### Electrical Specifications @ 25 °C

Bourns Part Number	Turns Ratio P(1-3): S(6-4)	Primary Inductance (μH min.)	Leakage Inductance @ 100 kHz, 0.1 V (all sec. pins shorted)		RDC (Ω) @ 25 °C		Hi-Pot Voltage
			1-3 (μH max.)	1-3 (Ω max.)	6-4 (Ω max.)		
HCT80101EAL	1:1	160	0.8	0.5	0.55	5.0k VDC 1 mA 60 s.	
HCT80102EAL	1:2		0.6		1.5		
HCT80201EAL	2:1		1		0.35		
HCT80304EAL	3:4		0.6		0.7		
HCT80305EAL	3:5		0.6		1.5		
HCT80308EAL	3:8		0.7		3		
HCT80403EAL	4:3		0.8		0.45		
HCT80803EAL	8:3		1.2		0.3		
HCT80809EAL	8:9		0.7		0.65		
HCT80910EAL	9:10		0.7		0.6		
HCT81017EAL	10:17		0.6		1.5		

### Product Dimensions



### Additional Information

Click these links for more information:



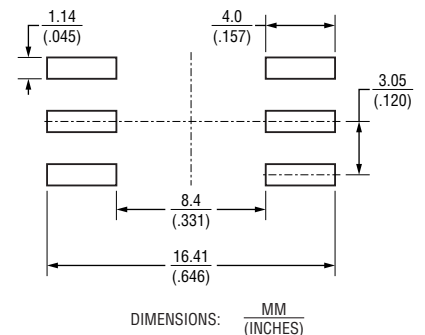
### General Specifications

L (100 kHz / 1 V)  
 -40 °C ~ +125 °C ..... 160 μH  
 Volt Second on Half Primaries:  
 (1-2 or 2-3) ..... 14 Vμs min.  
 Rated Current ..... 350 mA  
 Hi-Pot (1 mA, 60 S) ..... 5000 VDC  
 Reinforced Insulation  
 for Working Voltage ..... 800 V  
 Basic Insulation  
 for Working Voltage ..... 1000 V  
 Operating Temperature  
 ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 ..... -40 °C to +125 °C  
 Moisture Sensitivity Level ..... 1

### Materials

Core ..... Mn-Zn Ferrite  
 Wire ..... Enameled/full-insulated copper

### Recommended Layout



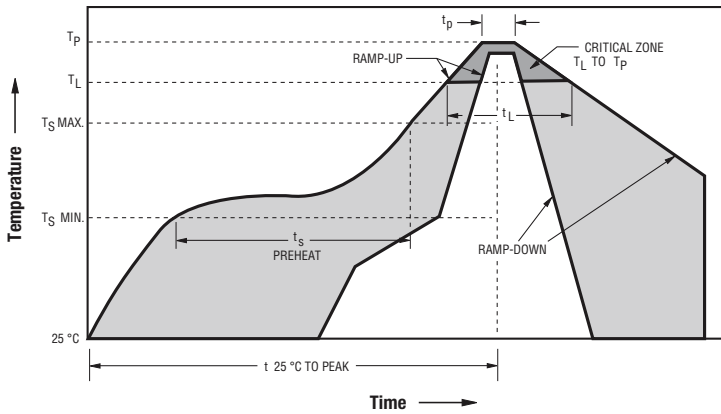
**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*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. 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](http://www.bourns.com/docs/legal/disclaimer.pdf).

# HCT8 Series High Clearance and Creepage Transformer

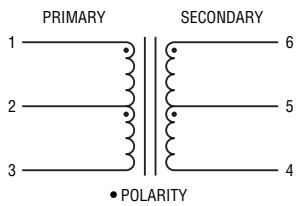


## Reflow Solder Profile



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate	3 °C / second max.
PREHEAT: Temperature Min. ( $T_{smin}$ ) Temperature Max. ( $T_{smax}$ ) Time ( $T_{smin}$ to $T_{smax}$ )	150 °C 200 °C 60~180 seconds
Liquidus Temperature ( $T_L$ )	217 °C
Time Above Liquidus Temperature ( $t_L$ )	60~150 seconds
Peak Temperature ( $T_p$ )	240-245 °C
Time within 5 °C of Actual Peak Temperature ( $t_p$ )	20~40 seconds
Ramp-Down Rate from Peak Temperature	6 °C / second max.
Time 25 °C to Peak Temperature ( $T_p$ )	8 minutes max.
Do Not Exceed	245 °C

## Electrical Schematic



## How To Order

**HCT8xxxxE A L - E**

Model \_\_\_\_\_  
 AEC-Q200 Compliancy Designator \_\_\_\_\_  
 RoHS Compliancy Designator \_\_\_\_\_  
 Packaging \_\_\_\_\_  
 E = 400 pcs. per 13-inch Reel

## Packaging Specifications

Tape & Reel ..... 400 pcs./13-inch reel

Specifications are subject to change without notice.

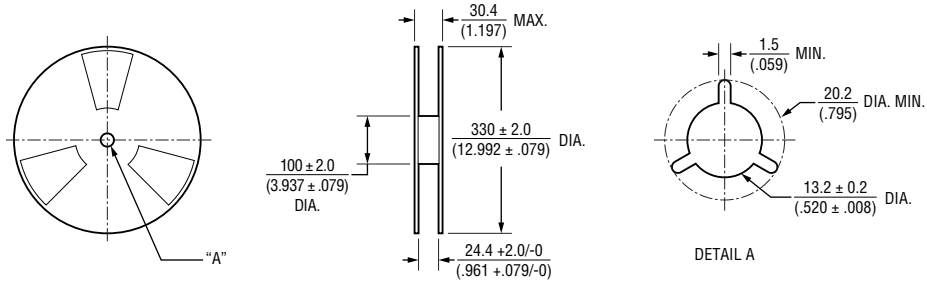
Users should verify actual device performance in their specific applications.

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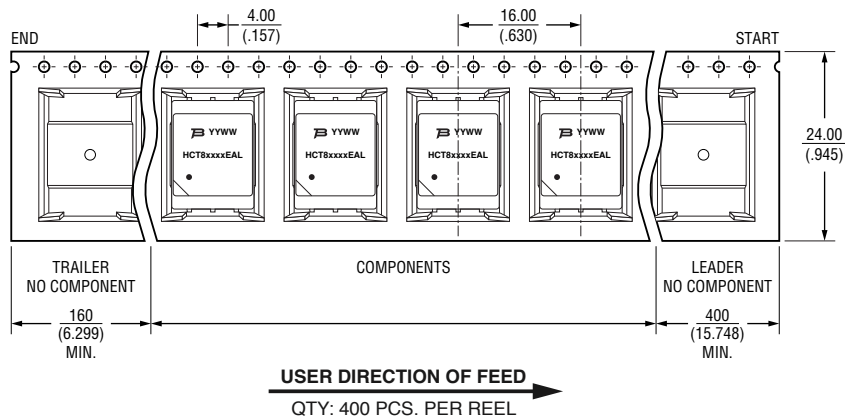
# HCT8 Series High Clearance and Creepage Transformer

**BOURNS®**

## Packaging Specifications



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



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