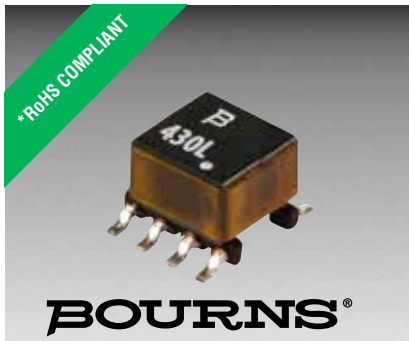




**THE DATASHEET OF  
SM51430EL**





## Features

- Compact size
- Targeted speed up to 1 Gbps
- Meets EN60950-1 Functional Insulation
- RoHS compliant\*

## Applications

- Broadcom G.Fast chipset BCM6594x and BCM6524x
- Microsemi line driver Le87282

# SM51430EL G.Fast Transformer

### Electrical Specifications @ 25 °C

#### DCR

Pin 1-4..... 1 Ω max.  
Pin 5-8..... 1 Ω max.

#### Inductance @10 kHz, 0.1 Vrms

Pin 1-4..... 10 μH ±10 %  
(Pin 2,3 Short)

#### Leakage Inductance @100 kHz, 0.1 Vrms

Pin 1-4..... 1 μH max.  
(Pin 2-3, 5-6-7-8 Short)

#### Interwinding Capacitance

@100 kHz, 0.1 Vrms

Pin 1-8..... 50 pF max.  
(Pin 2-3, 6-7 Short)

#### THD @200 kHz, 1 Vrms

Pin 1-4.....-68 dB min.  
(Pin 1-4, Pin 5-8: 100 Ω termination;  
Pin 2-3, 6-7 Short)

#### Longitudinal Balance

Pin 1-4.....44 dB min. @<12 MHz  
(Pin 2-3 Short)

Pin 1-4.....41 dB min. @17 MHz  
(Pin 2-3 Short)

Pin 1-4.....36 dB min. @30 MHz  
(Pin 2-3 Short)

#### Turns Ratio @10 kHz, 0.1 Vrms

Pin 1-4 : Pin 5-8 ..... 1:1 ±2 %  
(Pin 2-3, 6-7 Short)

#### Hi-Pot @1500 VAC, 1 sec., 0.5 mA

Pin 1-8..... (Pin 2-3, 6-7 Short)

#### Operating Temperature Range

.....-40 °C to +85 °C

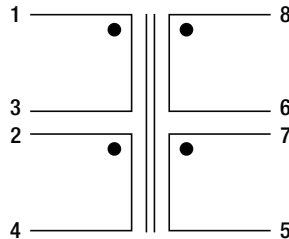
#### Storage Temperature Range

.....-40 °C to +85 °C

### Packaging Specifications

Tape & Reel..... 900 pcs./reel

### Electrical Schematic



### How To Order

**SM51430 E L**

Model \_\_\_\_\_

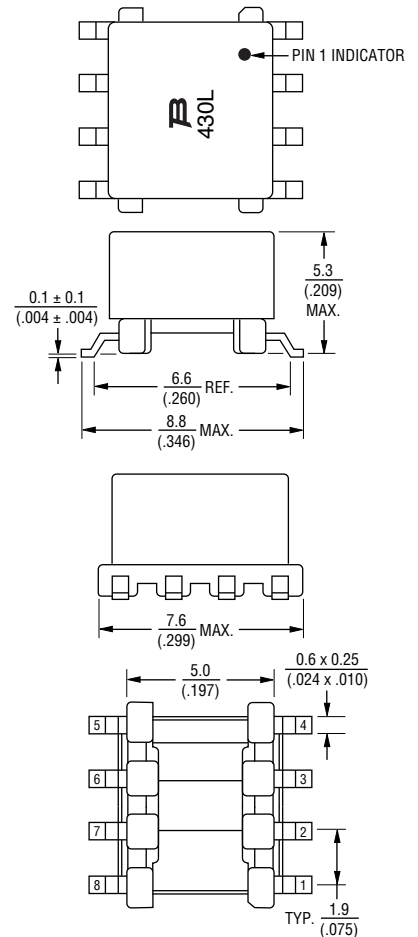
Packaging \_\_\_\_\_

E = Tape and Reel (900 pcs./reel)

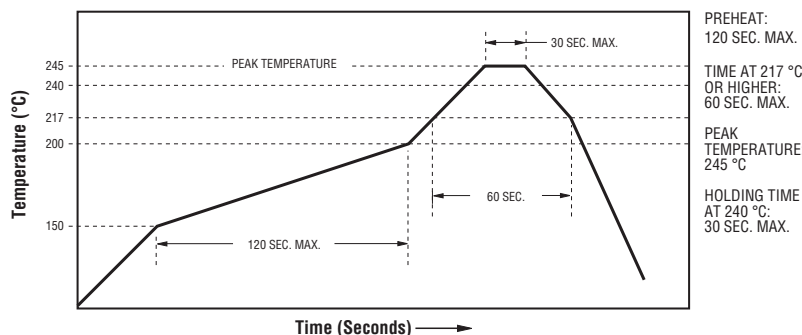
Termination \_\_\_\_\_

L = Tin (RoHS Compliant)

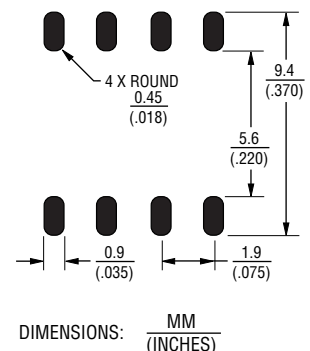
### Product Dimensions



### Reflow Solder Profile



### Recommended Layout



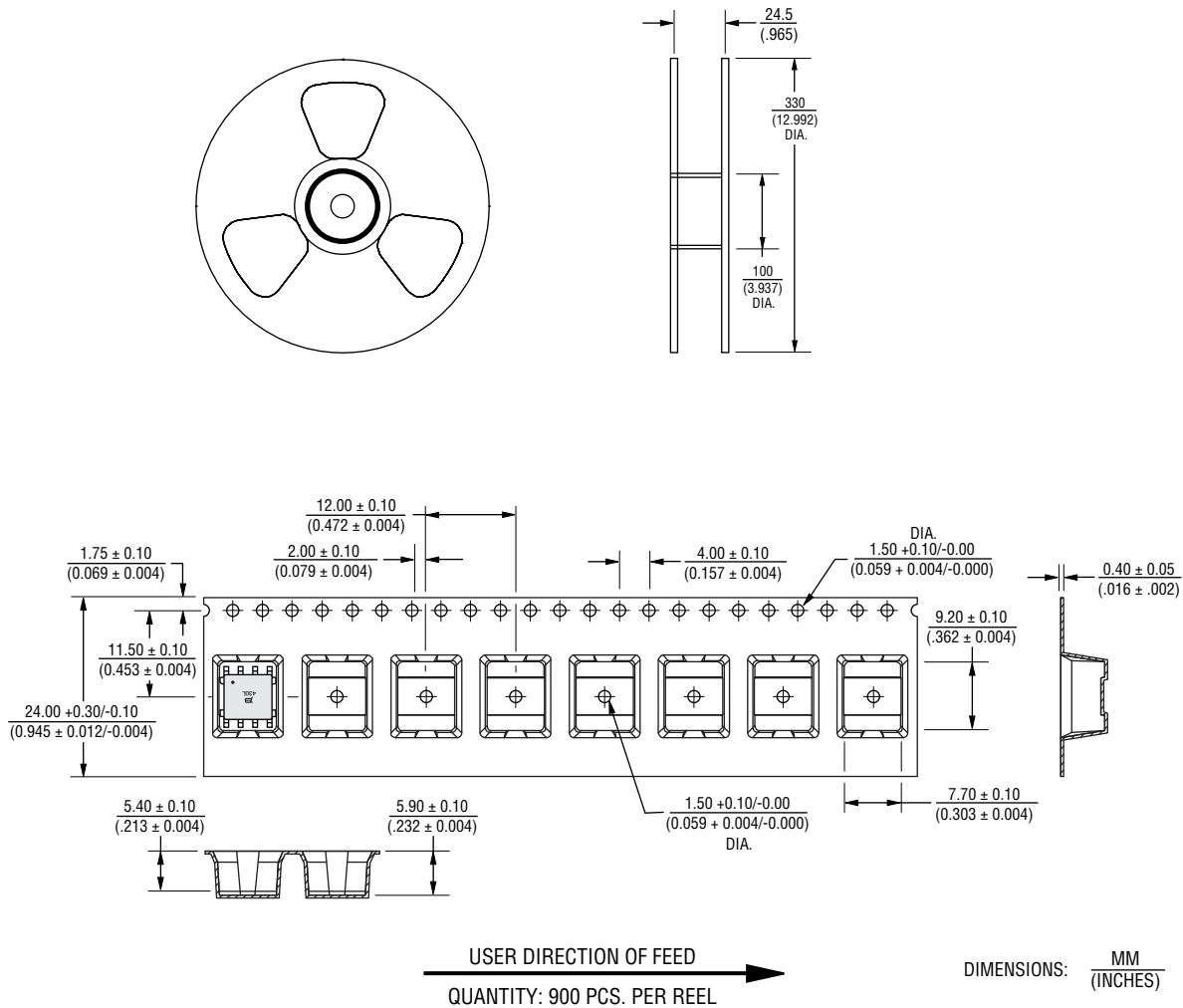
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. 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).

# SM51430EL G. Fast Transformer

**BOURNS®**

## Packaging Specifications



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