



## Features

- Shielded construction
- Inductance range: 3.5 to 100  $\mu$ H
- Rated current up to 5 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

# SRU8045A Series - Shielded Power Inductors

## Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz / 0.1 V |          | Q (Ref.) | Test Freq. (MHz) | SRF (MHz) Typ. | DCR ( $\Omega$ ) |        | I rms (A) | I sat (A) |
|--------------------|------------------------------|----------|----------|------------------|----------------|------------------|--------|-----------|-----------|
|                    | L ( $\mu$ H)                 | Tol. (%) |          |                  |                | Typ.             | Max.   |           |           |
| SRU8045A-3R5Y      | 3.5                          | $\pm 30$ | 12       | 7.96             | 45             | 0.0188           | 0.025  | 5.00      | 5.00      |
| SRU8045A-4R7Y      | 4.7                          | $\pm 30$ | 10       | 7.96             | 30             | 0.022            | 0.0275 | 4.60      | 4.40      |
| SRU8045A-6R2Y      | 6.2                          | $\pm 30$ | 10       | 7.96             | 23             | 0.0285           | 0.036  | 4.20      | 3.80      |
| SRU8045A-100Y      | 10                           | $\pm 30$ | 16       | 2.52             | 18             | 0.035            | 0.048  | 3.50      | 3.30      |
| SRU8045A-220Y      | 22                           | $\pm 30$ | 18       | 2.52             | 12             | 0.094            | 0.122  | 2.25      | 2.15      |
| SRU8045A-330Y      | 33                           | $\pm 30$ | 14       | 2.52             | 8              | 0.118            | 0.15   | 2.00      | 1.80      |
| SRU8045A-470Y      | 47                           | $\pm 30$ | 12       | 2.52             | 6              | 0.215            | 0.27   | 1.45      | 1.40      |
| SRU8045A-680Y      | 68                           | $\pm 30$ | 8        | 2.52             | 4              | 0.32             | 0.40   | 1.25      | 1.20      |
| SRU8045A-101Y      | 100                          | $\pm 30$ | 20       | 0.796            | 3              | 0.40             | 0.50   | 1.00      | 0.92      |

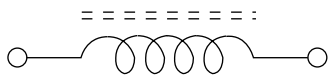
## General Specifications

Operating Temp. .... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature ... -40 °C to +125 °C  
 Temperature Rise ..... 40 °C at rated I rms  
 Rated Current  
 ..... Inductance drops 35 % at I sat  
 Failure In Time (FIT) ..... 24.7/10<sup>9</sup> hours  
 Mean Time Between Failures (MTBF)  
 ..... 40.4 x 10<sup>6</sup> hours

## Materials

Core ..... Ferrite  
 Wire ..... Enamelled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 1000 pcs. per 13-inch reel

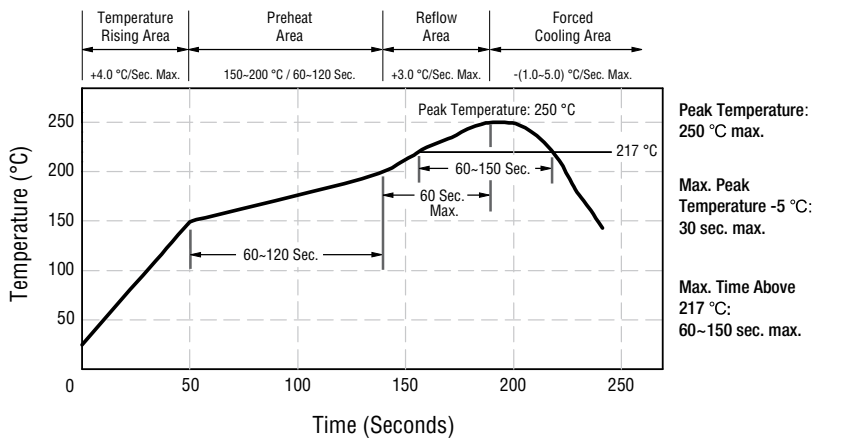
## Electrical Schematic



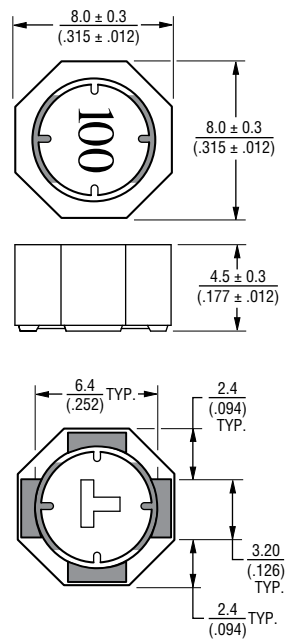
## How to Order

**SRU8045A - 100Y**  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

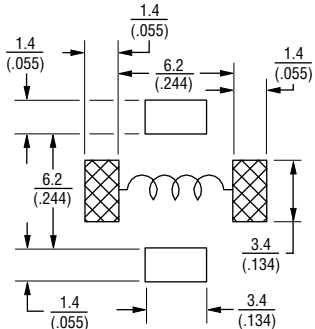
## Soldering Profile



## Product Dimensions



## Recommended Layout



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



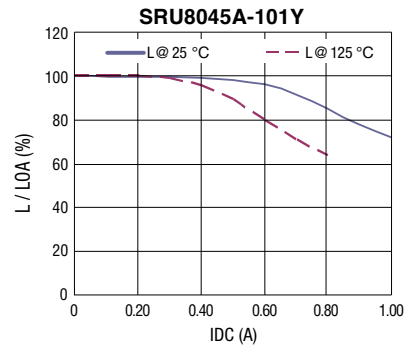
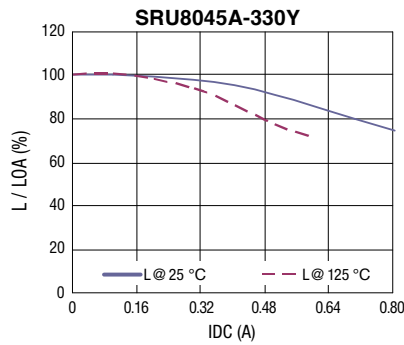
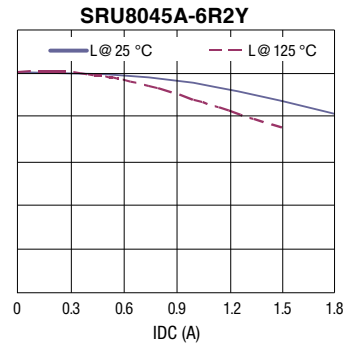
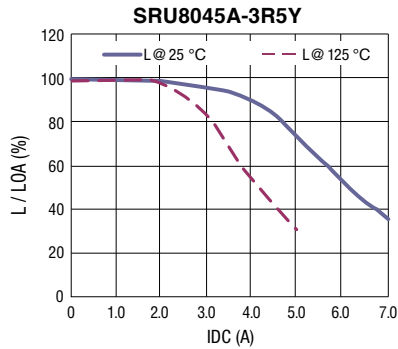
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 \*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.  
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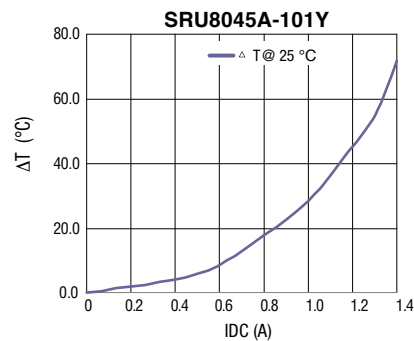
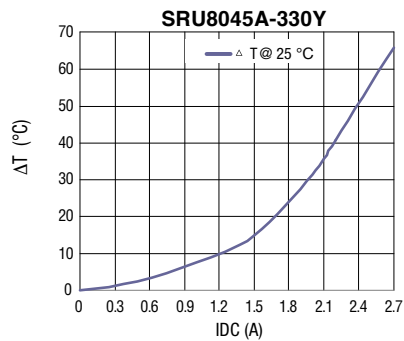
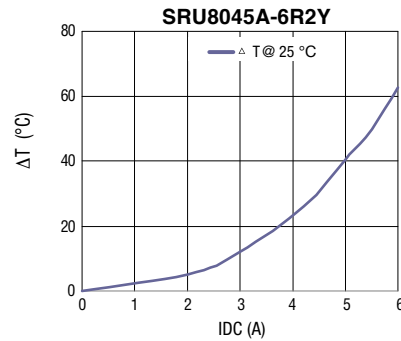
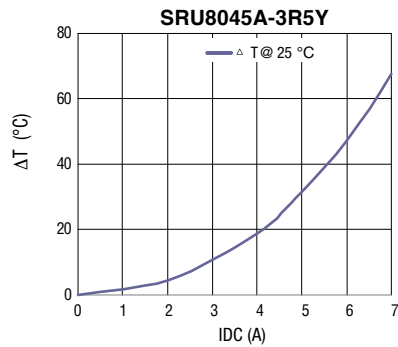
# SRU8045A Series - Shielded Power Inductors

**BOURNS®**

## Inductance vs. IDC



## Temperature vs. IDC



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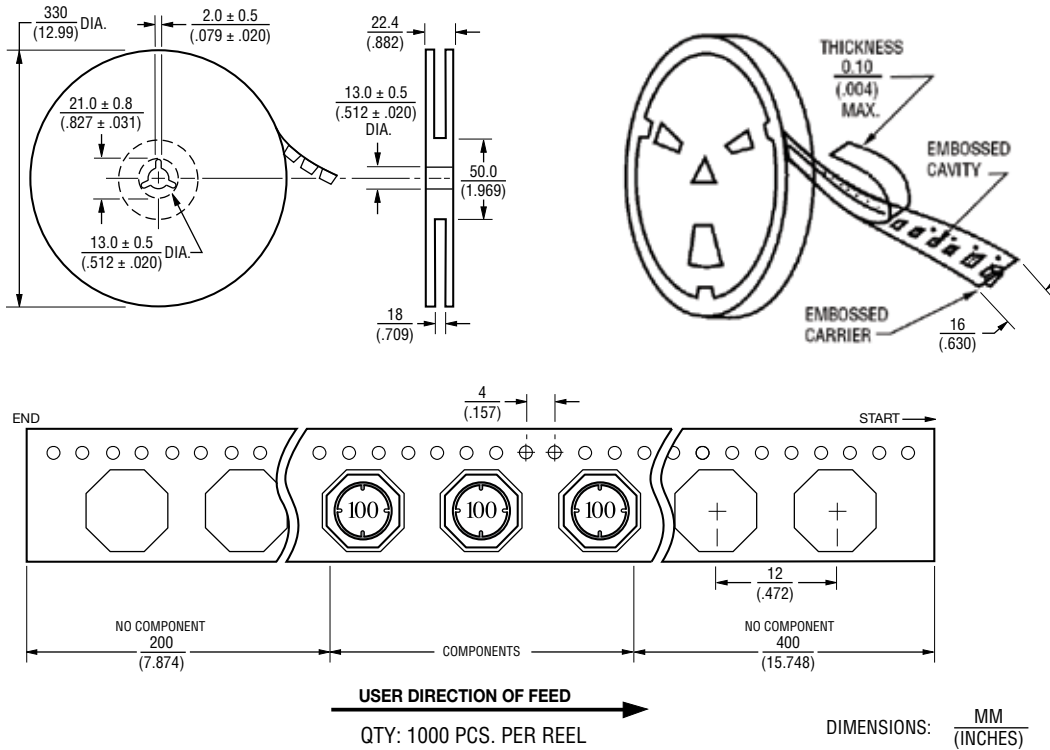
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# SRU8045A Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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