



**THE DATASHEET OF  
SRU8045A-680Y**





## 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

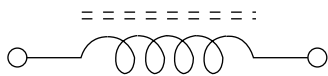
## General Specifications

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

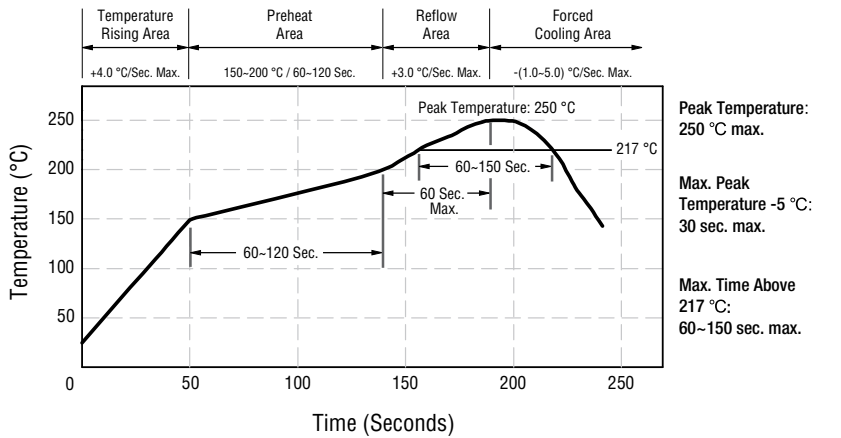
## Electrical Schematic



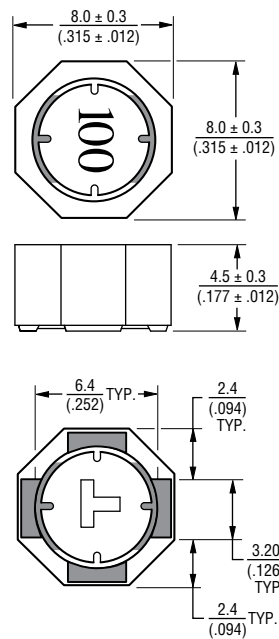
## How to Order

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

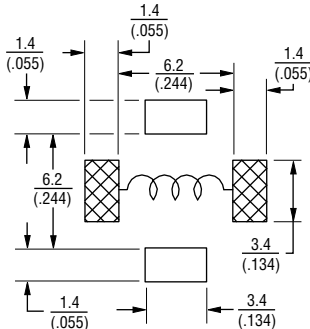
## Soldering Profile



## Product Dimensions



## Recommended Layout



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



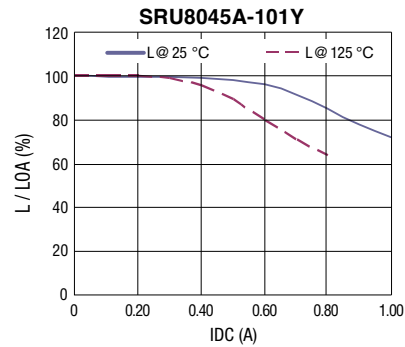
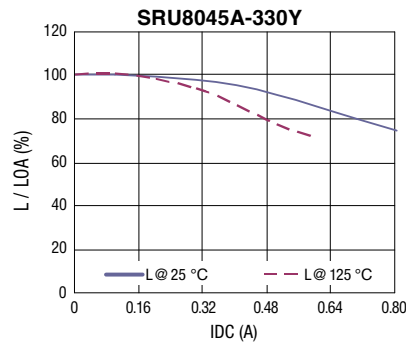
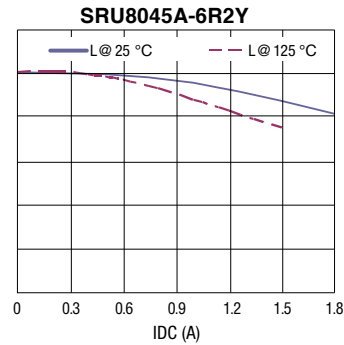
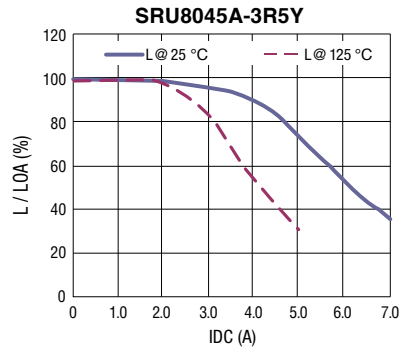
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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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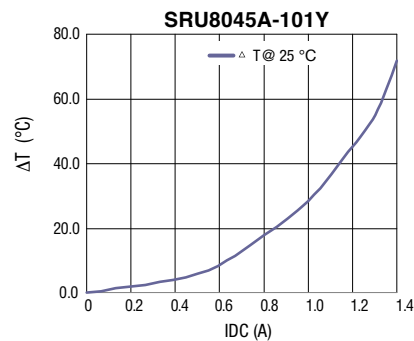
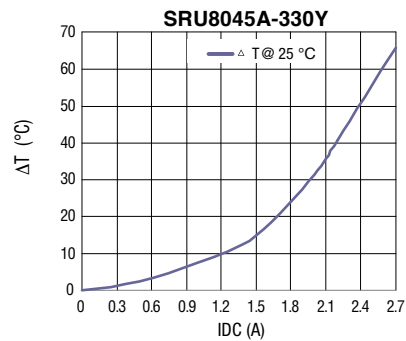
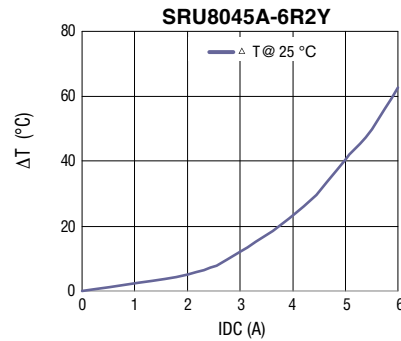
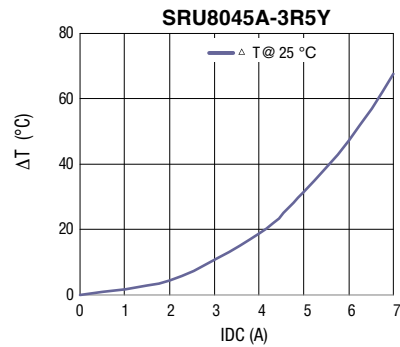
# SRU8045A Series - Shielded Power Inductors

**BOURNS®**

## Inductance vs. IDC



## Temperature vs. IDC



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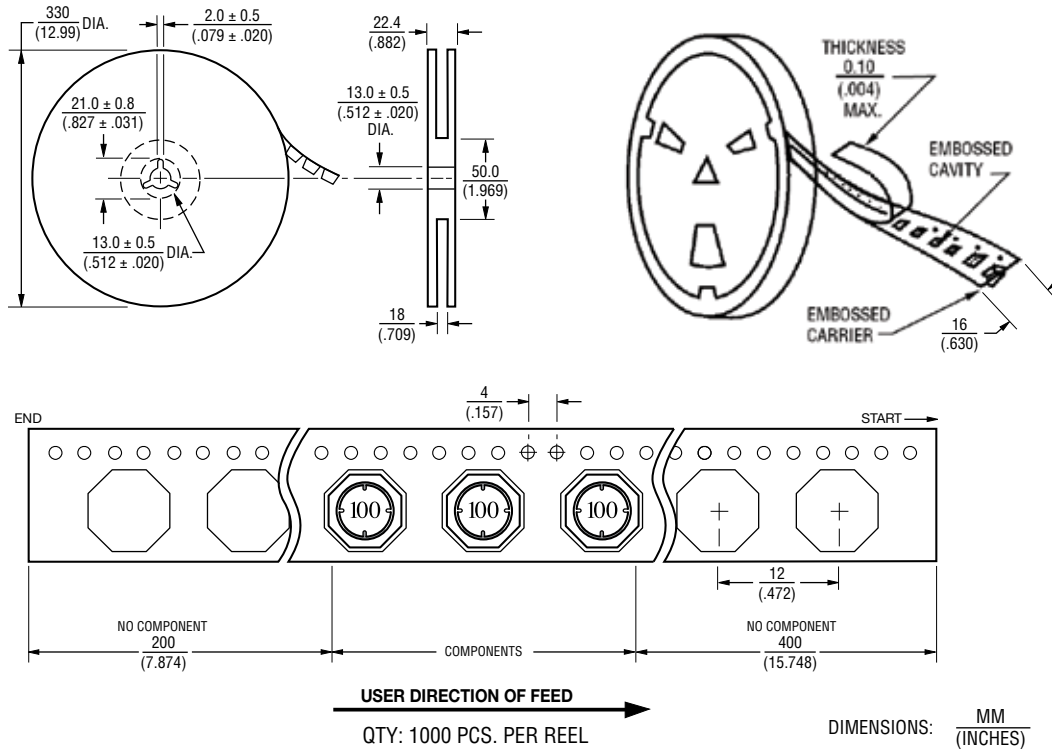
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# SRU8045A Series - Shielded Power Inductors

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## Packaging Specifications



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