



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Features

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

## Applications

- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

# 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 ( $\mu\text{H}$ )	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

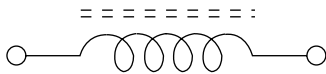
## General Specifications

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 ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 1000 pcs. per 13-inch reel

## Electrical Schematic

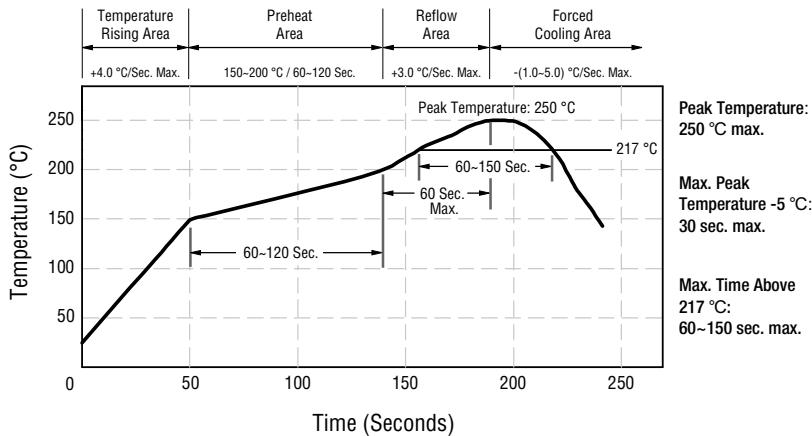


## How to Order

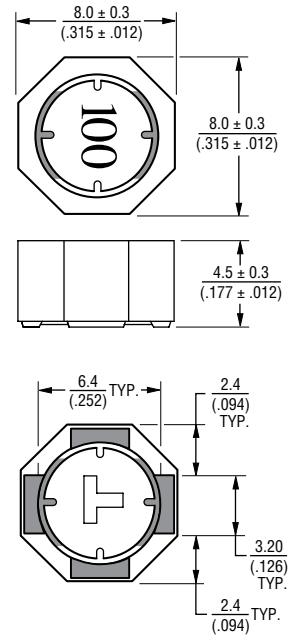
SRU8045A - 100Y

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

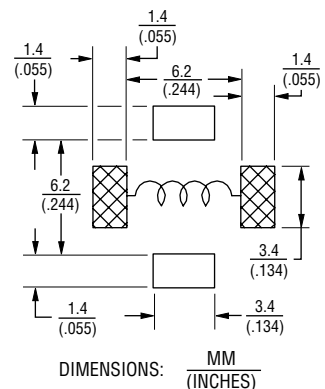
## Soldering Profile



## Product Dimensions



## Recommended Layout



\*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.

Specifications are subject to change without notice.

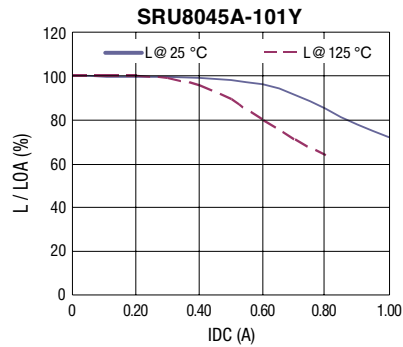
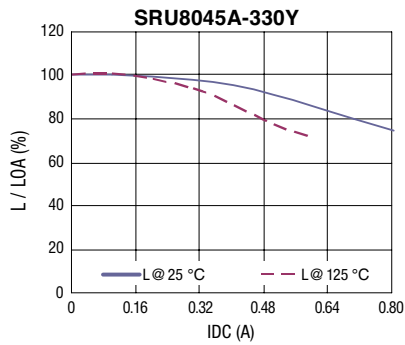
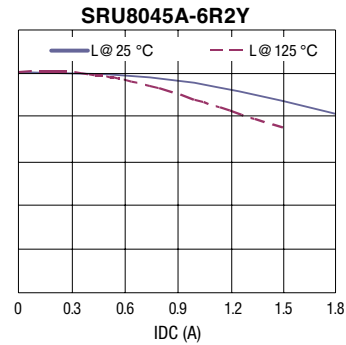
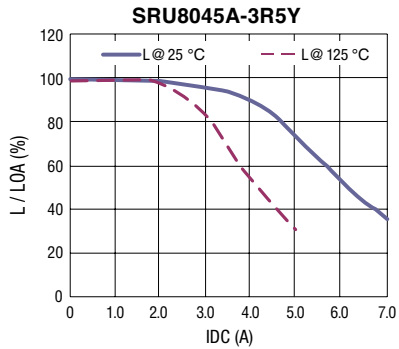
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

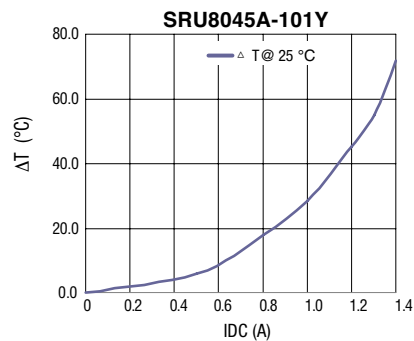
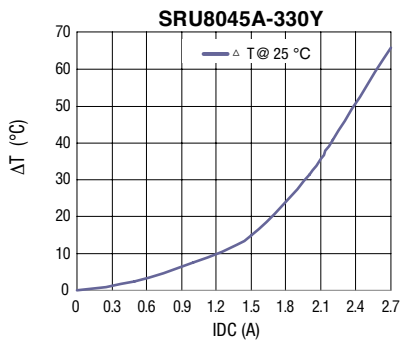
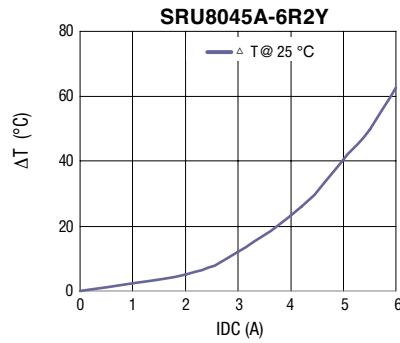
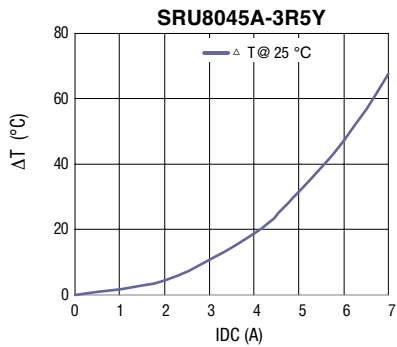
# SRU8045A Series - Shielded Power Inductors

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## Inductance vs. IDC



## Temperature vs. IDC

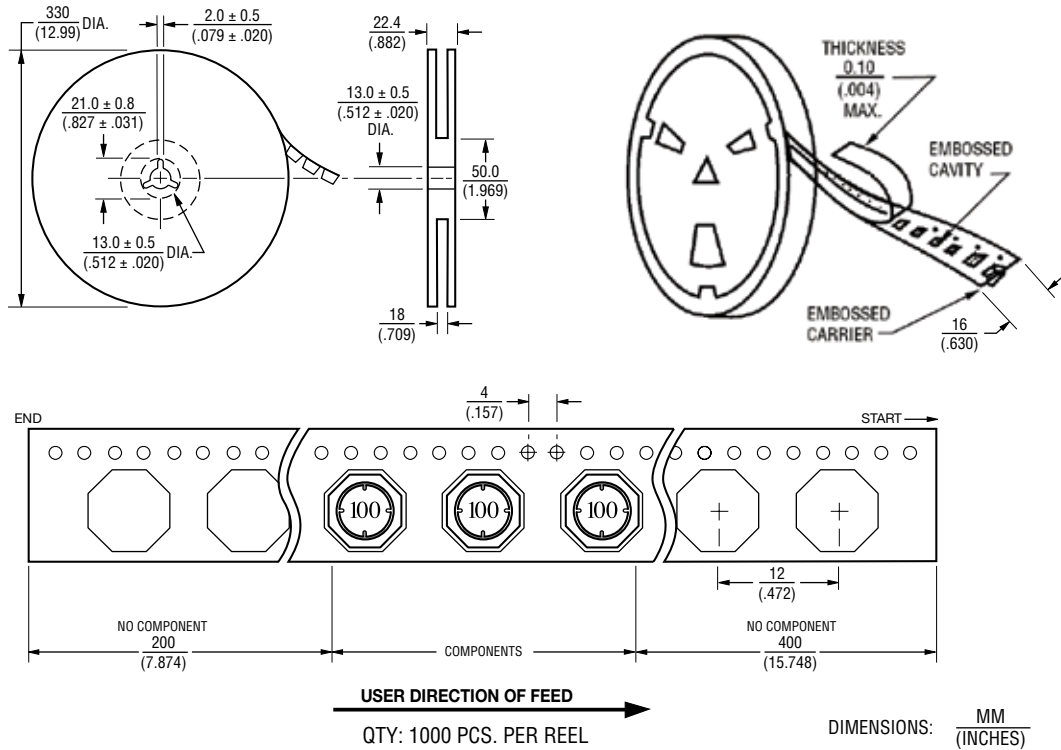


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## Packaging Specifications



07/16

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