



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## Features

- Semi-shielded construction
- Inductance range: 1 to 470  $\mu$ H
- Rated current up to 8 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## Applications

- Automotive systems:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies
- Digital video cameras
- HDDs
- Smartphones
- Televisions, LCD displays

# SRN6045TA Series - Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 1 V		Q (Min.) @ 1 MHz	SRF (MHz) Typ.	DCR (m $\Omega$ ) $\pm$ 20 %	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L ( $\mu$ H)	Tol. %					
SRN6045TA-1R0Y	1.0	$\pm$ 30	15	110	10	8.00	13.50
SRN6045TA-1R2Y	1.2	$\pm$ 30	15	90	10.5	7.50	12.5
SRN6045TA-1R5Y	1.5	$\pm$ 30	15	75	11.7	7.00	12.0
SRN6045TA-2R2Y	2.2	$\pm$ 30	15	55	15	6.00	9.50
SRN6045TA-3R3Y	3.3	$\pm$ 30	15	45	21	5.00	7.80
SRN6045TA-4R7M	4.7	$\pm$ 20	15	40	26	4.50	6.80
SRN6045TA-6R3M	6.3	$\pm$ 20	15	35	33	3.80	5.90
SRN6045TA-6R8M	6.8	$\pm$ 20	15	30	34	3.60	5.70
SRN6045TA-8R2M	8.2	$\pm$ 20	15	27	46	3.40	5.10
SRN6045TA-100M	10	$\pm$ 20	15	25	52	3.20	4.60
SRN6045TA-120M	12	$\pm$ 20	15	22	65	3.00	4.00
SRN6045TA-150M	15	$\pm$ 20	15	20	71	2.80	3.80
SRN6045TA-220M	22	$\pm$ 20	15	17	96	2.30	3.30
SRN6045TA-330M	33	$\pm$ 20	15	13	145	1.80	2.50
SRN6045TA-470M	47	$\pm$ 20	15	12	200	1.60	2.00
SRN6045TA-560M	56	$\pm$ 20	15	11	230	1.40	1.80
SRN6045TA-680M	68	$\pm$ 20	15	10	305	1.10	1.60
SRN6045TA-820M	82	$\pm$ 20	15	9	365	0.98	1.50
SRN6045TA-101M	100	$\pm$ 20	15	8.5	456	0.92	1.33
SRN6045TA-121M	120	$\pm$ 20	15	7	500	0.85	1.20
SRN6045TA-151M	150	$\pm$ 20	15	6.5	626	0.75	1.10
SRN6045TA-181M	180	$\pm$ 20	15	6	745	0.68	1.00
SRN6045TA-221M	220	$\pm$ 20	15	5	900	0.60	0.88
SRN6045TA-331K	330	$\pm$ 10	15	4	1400	0.55	0.60
SRN6045TA-471K	470	$\pm$ 10	15	3	2050	0.40	0.50

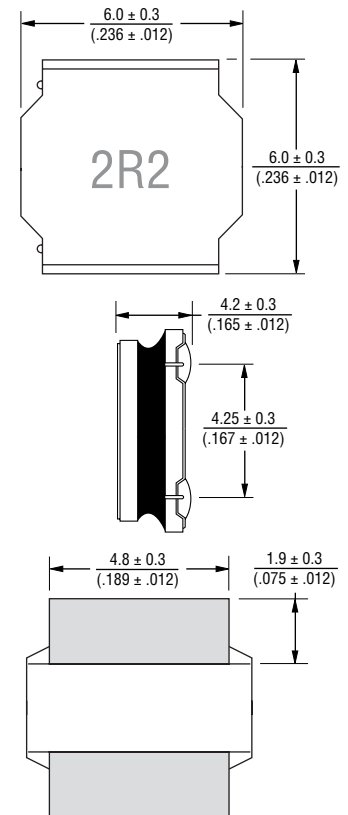
## General Specifications

Operating Temp. .... -55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -55 °C to +125 °C  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Failure In Time (FIT) ..... 24.7/10<sup>9</sup> hours  
 Mean Time Between Failures (MTBF)  
 ..... 40.4 x 10<sup>6</sup> hours

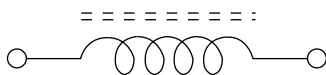
## Materials

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

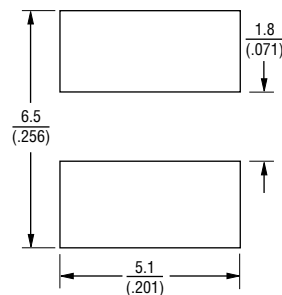
## Product Dimensions



## Electrical Schematic



## Recommended Layout



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

## How to Order

**SRN6045TA - 100M**

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

\*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.

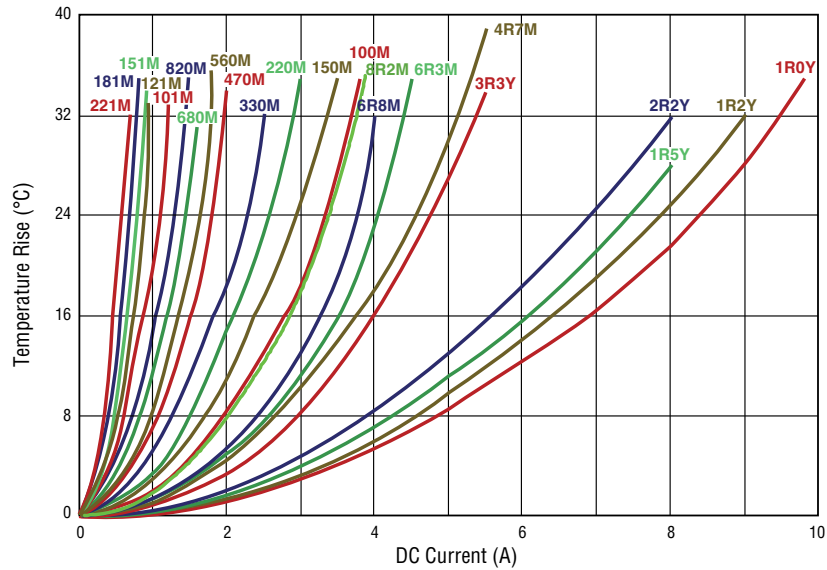
Specifications are subject to change without notice.

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.

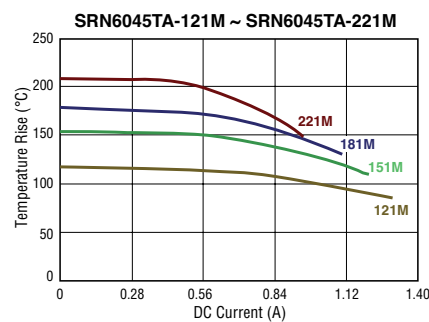
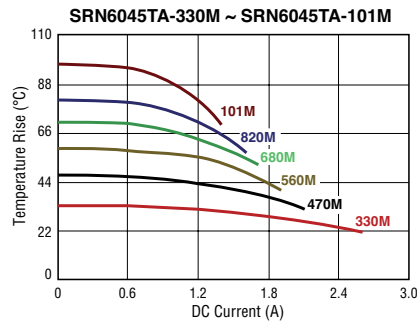
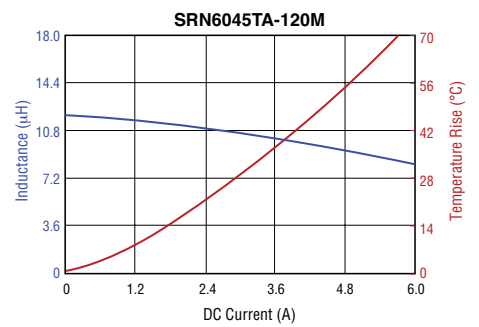
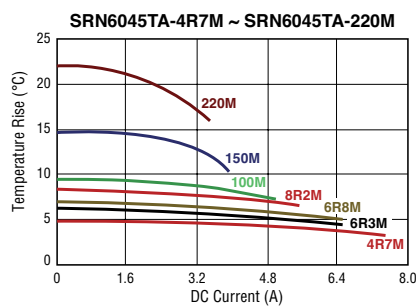
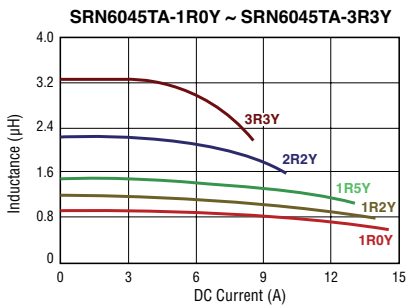
# SRN6045TA Series - Semi-shielded Power Inductors



## Temperature Rise vs. Current



## Inductance vs. Current



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