



**THE DATASHEET OF  
SRN5040TA-1R5M**





## Features

- Semi-shielded construction
- Inductance range: 0.6 to 100  $\mu$ H
- Rated current up to 8 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

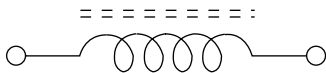
- DC/DC converters
- Power supplies

# SRN5040TA Series - Semi-shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q @ 100 kHz Min.	SRF (MHz) Typ.	DCR ( $\Omega$ ) $\pm 20$ %	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L ( $\mu$ H)	Tol. %					
SRN5040TA-R60M	0.60	$\pm 20$	15	250	0.008	8.00	11.00
SRN5040TA-1R0M	1.0	$\pm 20$	15	140	0.012	5.00	7.50
SRN5040TA-1R5M	1.5	$\pm 20$	15	112	0.015	4.50	6.50
SRN5040TA-2R2M	2.2	$\pm 20$	15	62	0.021	3.80	5.70
SRN5040TA-3R3M	3.3	$\pm 20$	15	48	0.024	3.50	4.40
SRN5040TA-4R7M	4.7	$\pm 20$	15	36	0.032	3.20	3.90
SRN5040TA-6R8M	6.8	$\pm 20$	15	32	0.043	2.50	3.30
SRN5040TA-100M	10	$\pm 20$	15	26	0.056	2.20	2.52
SRN5040TA-150M	15	$\pm 20$	15	22	0.08	1.80	2.00
SRN5040TA-220M	22	$\pm 20$	15	16	0.123	1.50	1.62
SRN5040TA-330M	33	$\pm 20$	15	13	0.18	1.20	1.30
SRN5040TA-470K	47	$\pm 10$	15	11	0.27	1.00	1.10
SRN5040TA-680K	68	$\pm 10$	15	10	0.4	0.80	0.90
SRN5040TA-101K	100	$\pm 10$	15	7	0.56	0.72	0.75

### Electrical Schematic

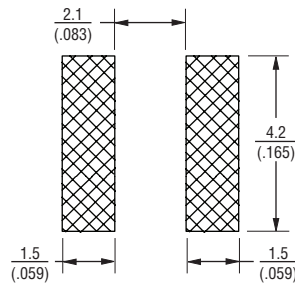


### How to Order

SRN5040TA - 2R2M

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

### Recommended Layout



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

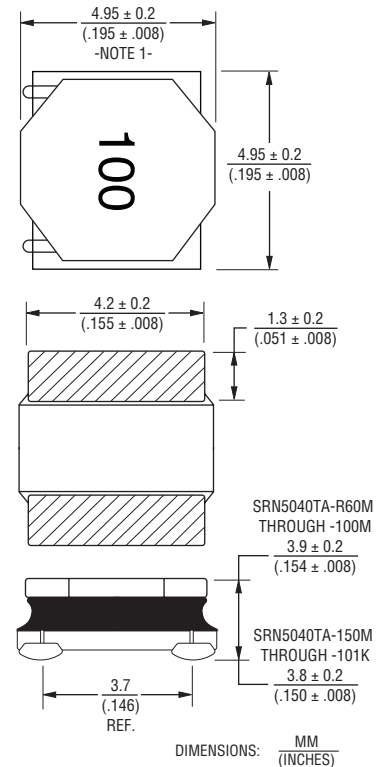
### General Specifications

Operating Temperature ..... -55 °C to +125 °C  
(Temperature rise included)  
Storage Temperature (Component) ..... -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>  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Coating ..... Magnetic epoxy resin  
Packaging ..... 1500 pcs. per 13-inch reel

### Product Dimensions



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



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

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\*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.

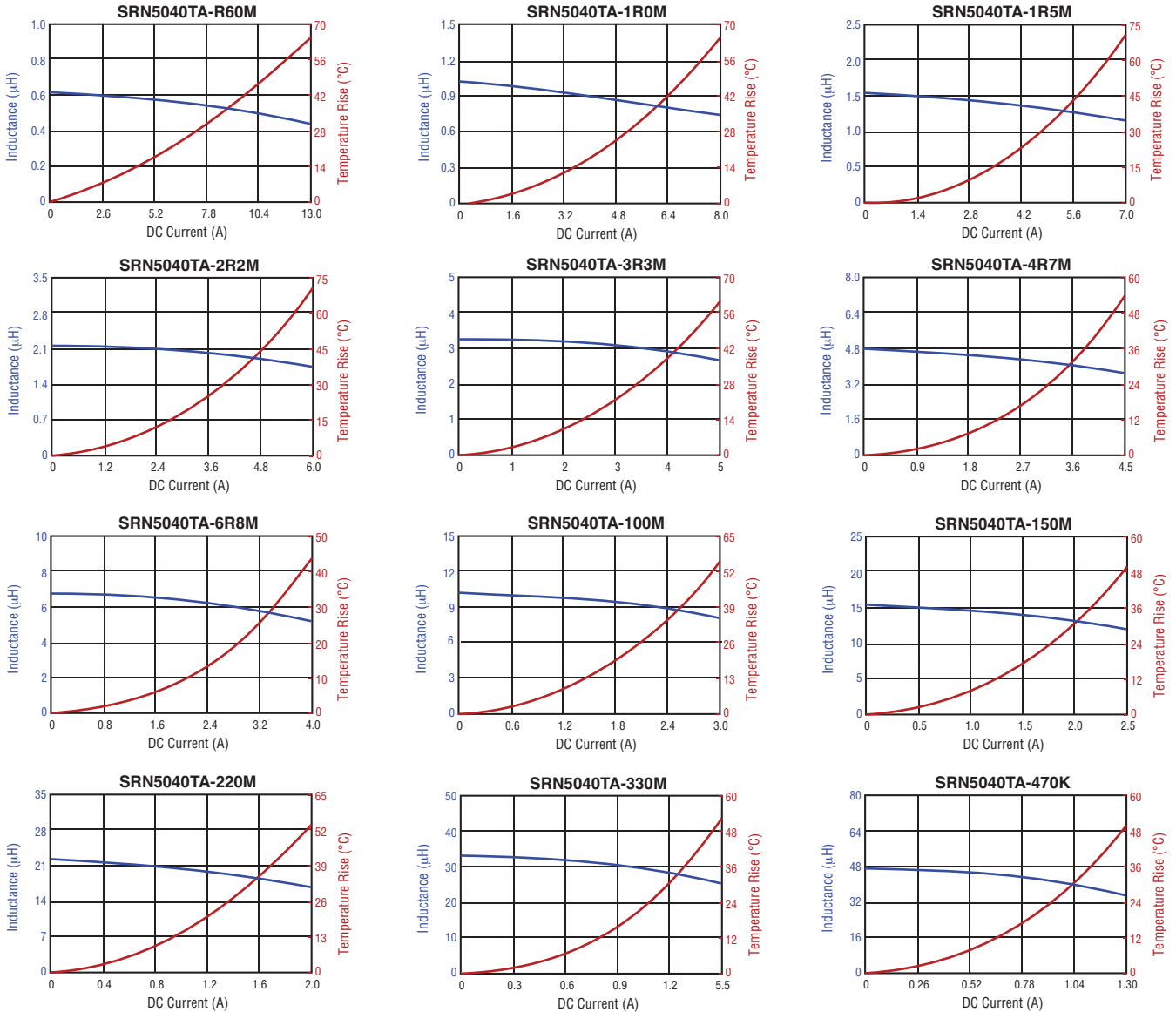
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# SRN5040TA Series - Semi-shielded Power Inductors



## Inductance vs. Current

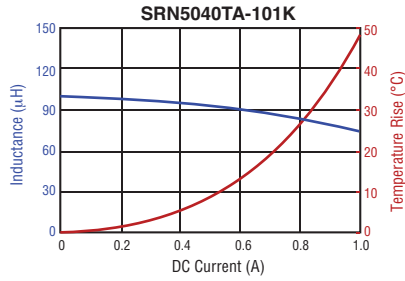
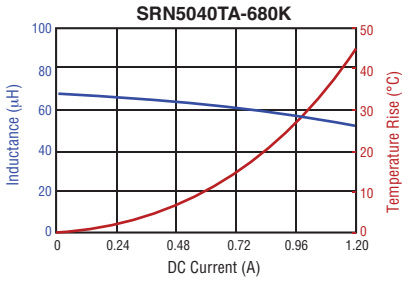


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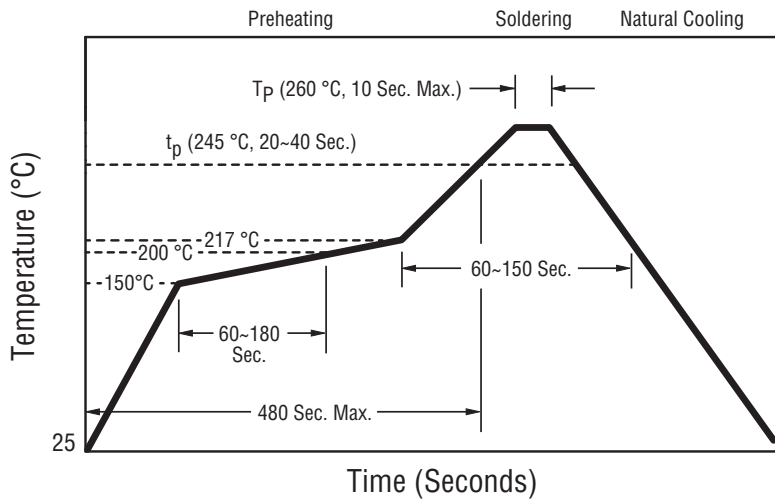
# SRN5040TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Inductance vs. Current (Continued)



## Soldering Profile



Reflow 3 times max.

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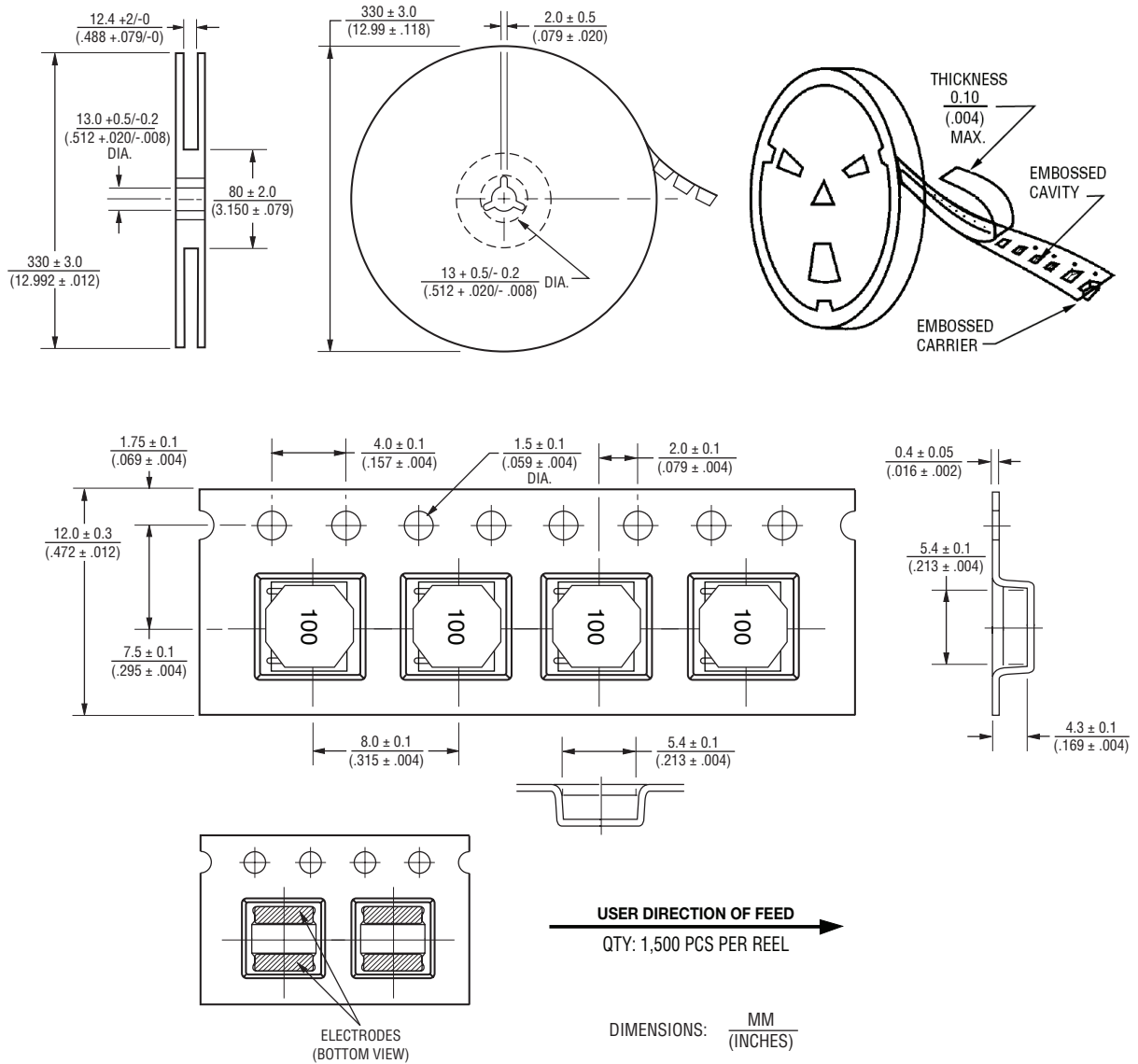
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# SRN5040TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



09/18

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