



**THE DATASHEET OF  
SRN5020TA-2R2M**





### Features

- Semi-shielded construction
- Inductance range: 1 to 47  $\mu$ H
- Rated current up to 4.1 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

### Applications

- DC/DC converters
- Power supplies

## SRN5020TA 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. %					
SRN5020TA-1R0Y	1.0	$\pm 30$	15	143	0.02	4.10	5.00
SRN5020TA-1R2Y	1.2	$\pm 30$	15	132	0.02	3.80	4.80
SRN5020TA-1R5Y	1.5	$\pm 30$	15	112	0.025	3.50	4.50
SRN5020TA-2R2M	2.2	$\pm 20$	15	86	0.032	3.30	4.10
SRN5020TA-3R3M	3.3	$\pm 20$	15	75	0.043	2.80	3.50
SRN5020TA-4R7M	4.7	$\pm 20$	15	58	0.06	2.40	2.70
SRN5020TA-5R6M	5.6	$\pm 20$	15	50	0.069	2.10	2.40
SRN5020TA-6R8M	6.8	$\pm 20$	15	46	0.09	1.90	2.10
SRN5020TA-8R2M	8.2	$\pm 20$	15	43	0.098	1.75	1.90
SRN5020TA-100M	10	$\pm 20$	15	41	0.11	1.60	1.70
SRN5020TA-120M	12	$\pm 20$	15	36	0.135	1.40	1.40
SRN5020TA-150M	15	$\pm 20$	15	32	0.165	1.25	1.30
SRN5020TA-180M	18	$\pm 20$	15	28	0.19	1.17	1.20
SRN5020TA-220M	22	$\pm 20$	15	25	0.225	1.10	1.10
SRN5020TA-330M	33	$\pm 20$	15	20	0.335	0.80	0.80
SRN5020TA-470M	47	$\pm 20$	15	16	0.46	0.70	0.70

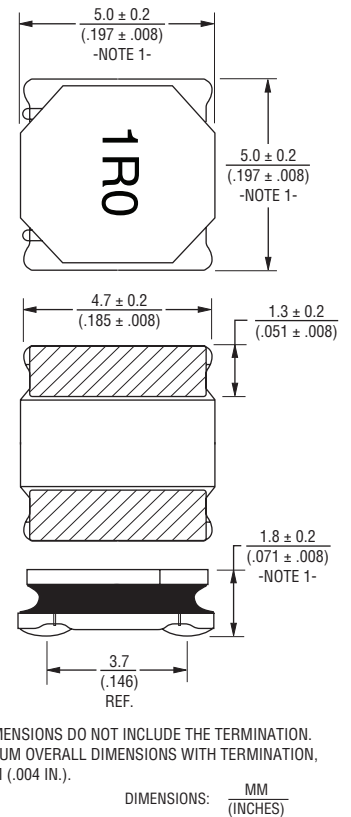
### General Specifications

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

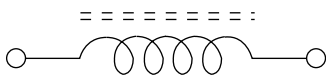
### Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Coating ..... Magnetic epoxy resin  
 Packaging ..... 2500 pcs. per 13-inch reel

### Product Dimensions



### Electrical Schematic

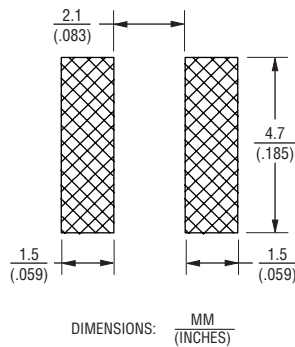


### How to Order

SRN5020TA - 2R2M

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

### Recommended Layout



**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.

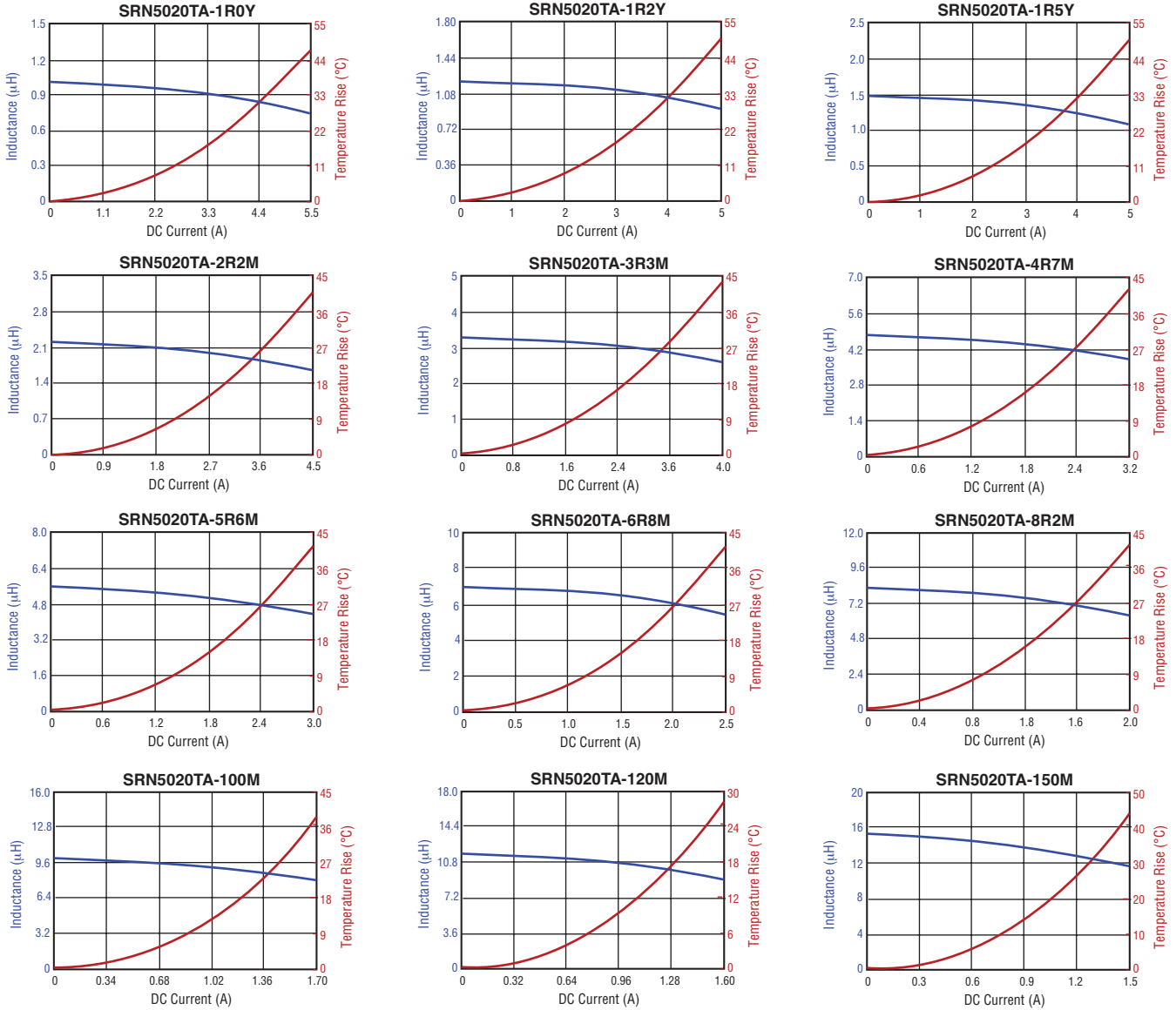
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# SRN5020TA Series - Semi-shielded Power Inductors



## Inductance vs. Current

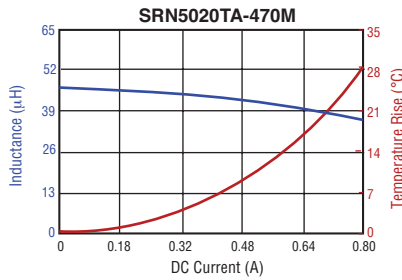
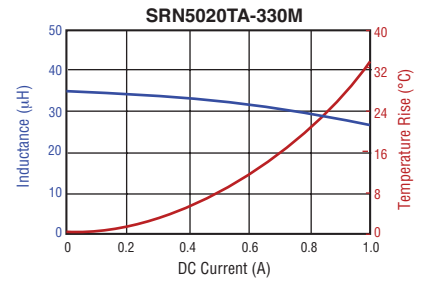
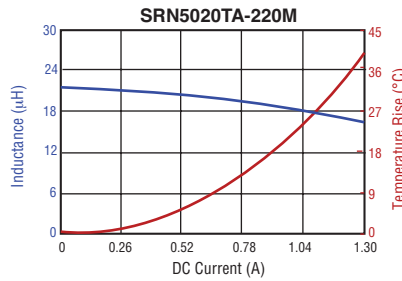
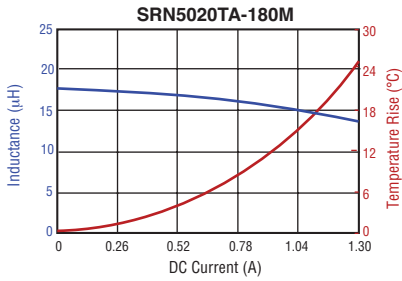


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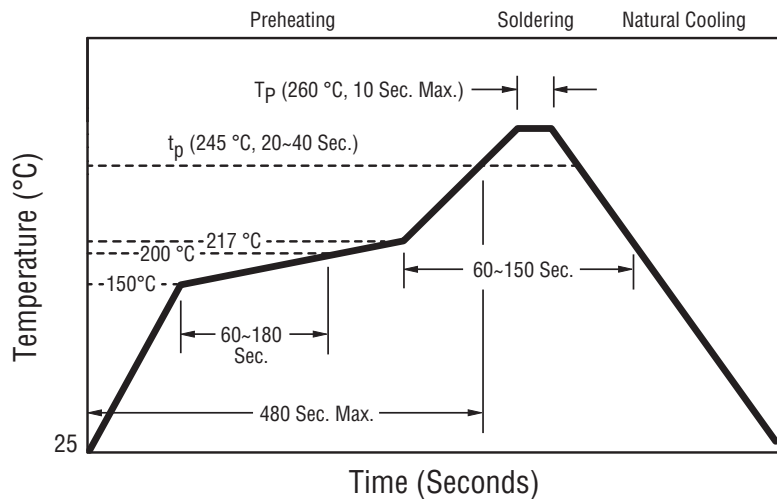
# SRN5020TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Inductance vs. Current (Continued)



## Soldering Profile



Reflow 3 times max.

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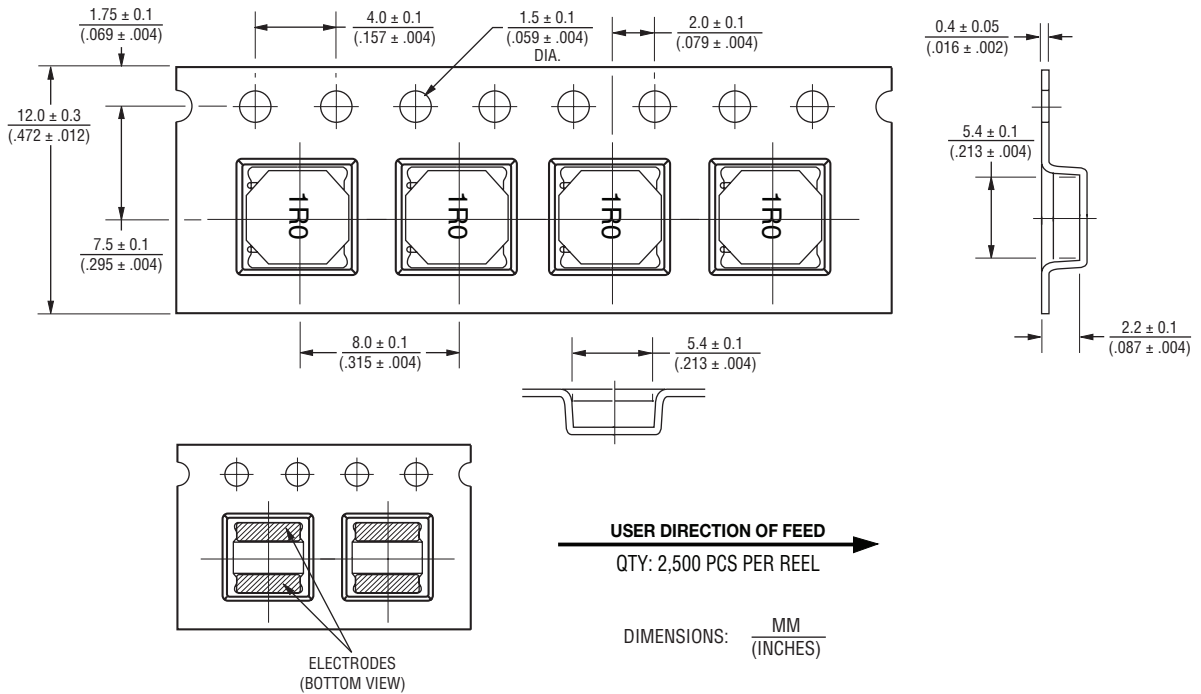
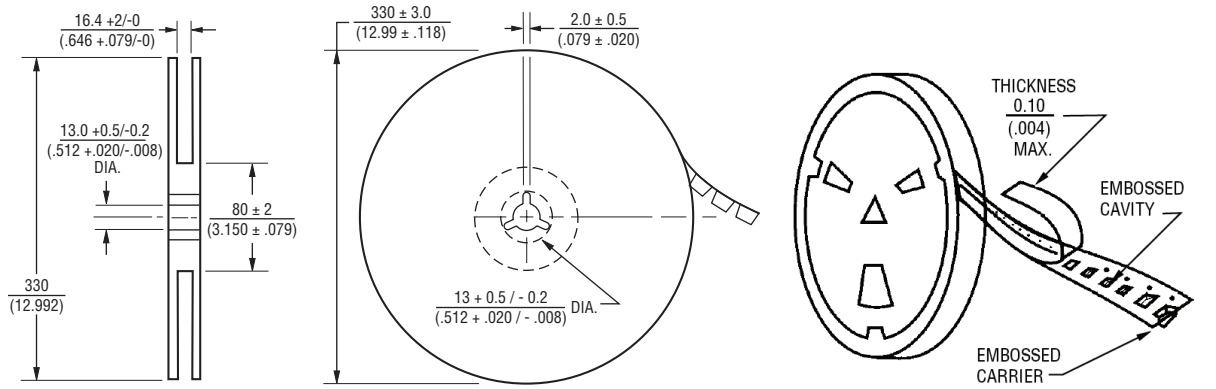
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# SRN5020TA Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



09/18

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