



## Features

- Semi-shielded construction
- Component height: 2 mm max.
- Inductance range: 1 to 33  $\mu$ H
- High rated current - up to 3.6 A
- RoHS compliant\* and halogen free\*\*

## Applications

- DC/DC converters
- Notebook computers
- Digital video cameras
- Televisions, LCD displays

# SRN5020 Series - Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 KHz/1 V		Q (Ref.)	Test Freq. (MHz)	SRF (MHz) Typ.	DCR ( $\Omega$ ) Max.	Irms (A)	Isat (A)
	L ( $\mu$ H)	Tol. %						
SRN5020-1R0Y	1.0	30	13	7.96	85	0.025	3.60	4.00
SRN5020-1R5Y	1.5	30	13	7.96	60	0.031	3.20	3.35
SRN5020-2R2Y	2.2	30	11	7.96	50	0.042	2.90	2.90
SRN5020-3R3M	3.3	20	11	7.96	40	0.058	2.40	2.40
SRN5020-4R7M	4.7	20	11	7.96	30	0.072	2.0	2.00
SRN5020-5R6M	5.6	20	11	7.96	28	0.106	1.80	1.80
SRN5020-6R8M	6.8	20	11	7.96	23	0.108	1.65	1.60
SRN5020-100M	10	20	11	2.52	21	0.144	1.45	1.30
SRN5020-150M	15	20	14	2.52	15	0.198	1.20	1.10
SRN5020-220M	22	20	11	2.52	13	0.312	1.00	0.90
SRN5020-330M	33	20	11	2.52	10	0.516	0.90	0.80

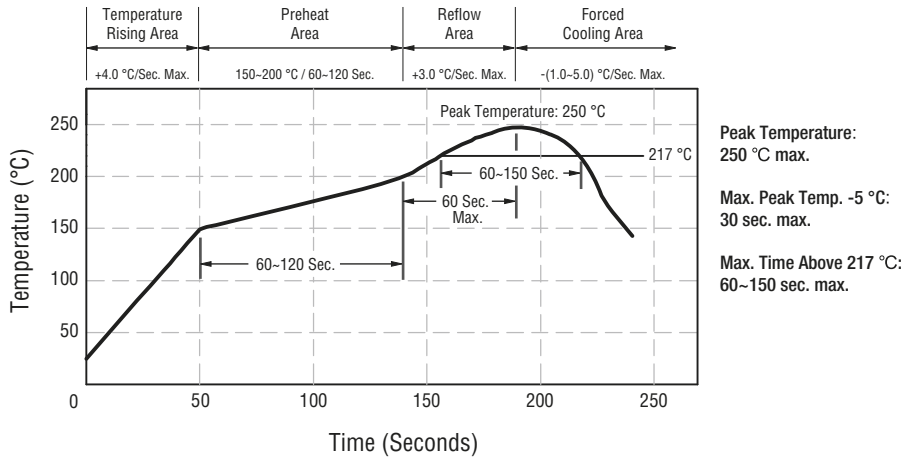
## General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component) ..... -40 °C to +125 °C  
 Resistance to Solder Heat ..... +260 °C for 10 sec.  
 Temperature Rise ..... 40 °C at rated Irms  
 Rated Current ..... Inductance drops 30 % at Isat  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

## Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ag/Cu  
 Coating ..... Magnetic epoxy resin  
 Packaging ..... 2000 pcs. per 13-inch reel

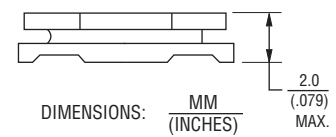
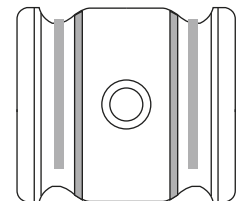
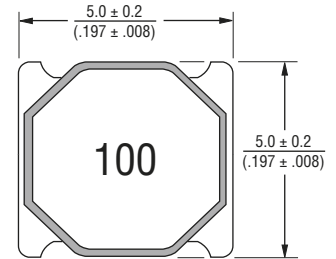
## Soldering Profile



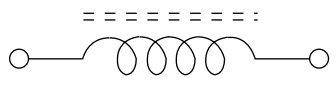
## How to Order

**SRN5020 - 100M**  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

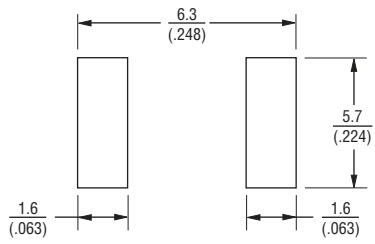
## Product Dimensions



## Electrical Schematic



## Recommended Layout



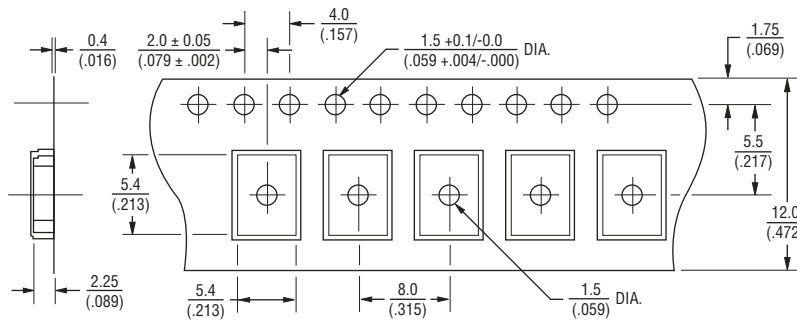
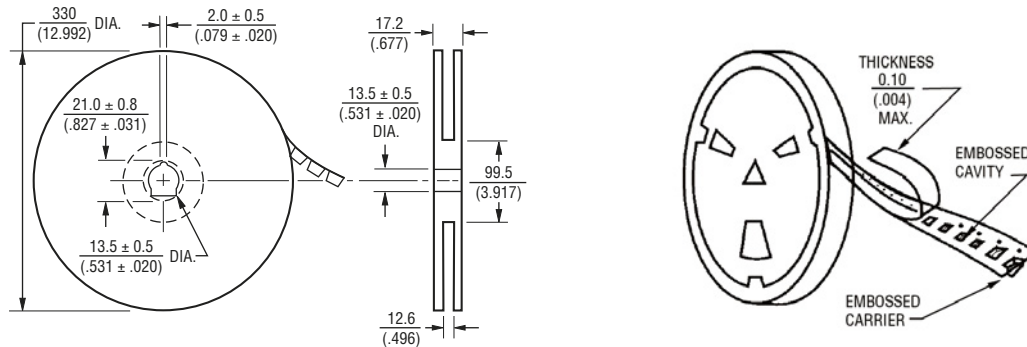
  
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* 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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# SRN5020 Series - Semi-shielded Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 2000 PCS. PER REEL

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

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

EMEA: Tel: +36 88 520 390 • Fax: +36 88 520 211

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

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REV. 09/17

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Users should verify actual device performance in their specific applications.

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