



Features

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

Applications

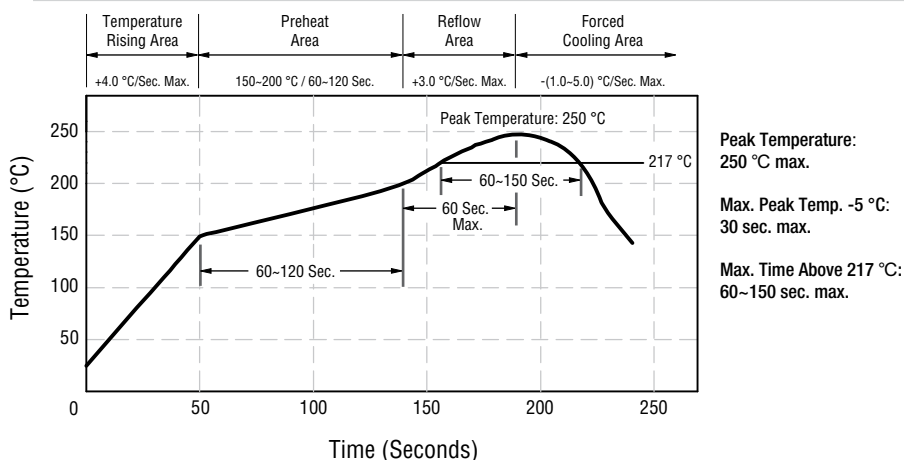
- DC/DC converters
- Notebook computers
- Digital video cameras
- Televisions, LCD displays

SRN5020 Series - Semi-shielded Power Inductors

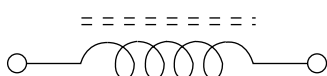
Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 KHz/1 V		Q (Ref.)	Test Freq. (MHz)	SRF (MHz) Typ.	DCR (Ω) Max.	Irms (A)	Isat (A)
	L (μ 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

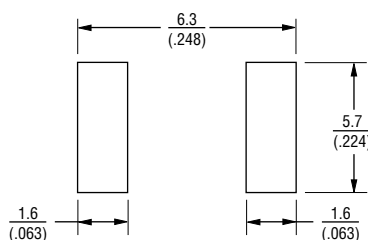
Soldering Profile



Electrical Schematic



Recommended Layout



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) 3B

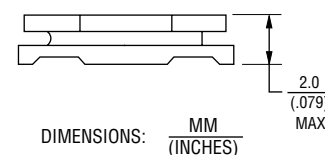
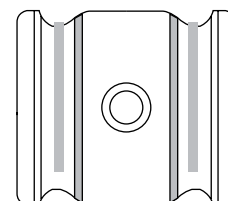
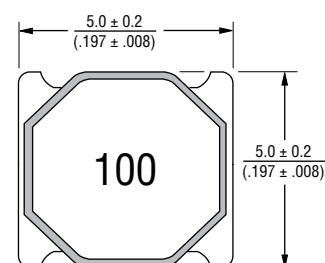
Materials

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

How to Order

Model SRN5020 - 100M
Value Code (see table)

Product Dimensions



* RoHS Directive 2002/95/EC Jan 27, 2003 including 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.

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.

BOURNS®

Technical drawing of a 12.0mm diameter metal component, likely a coin or token, showing three views: top, side, and detail.

Top View Dimensions:

- Overall Diameter: 12.0 (0.472)
- Inner Circle Diameter: 13.5 ± 0.5 (0.531 ± .020)
- Inner Circle Diameter: 21.0 ± 0.8 (0.827 ± .031)
- Inner Circle Diameter: 330 (12.992) DIA.

Side View Dimensions:

- Overall Thickness: 17.2 (0.677)
- Inner Thickness: 13.5 ± 0.5 (0.531 ± .020) DIA.
- Inner Thickness: 99.5 (3.917)
- Inner Thickness: 12.6 (0.496)

Detail View Dimensions:

- THICKNESS: 0.10 (0.004) MAX.
- EMBOSSED CAVITY
- EMBOSSED CARRIER

Bottom View Dimensions:

- Overall Width: 12.0 (0.472)
- Overall Length: 1.75 (0.069)
- Overall Length: 5.4 (0.213)
- Overall Length: 2.25 (0.089)
- Overall Length: 0.4 (0.016)
- Overall Length: 2.0 ± 0.05 (0.079 ± .002)
- Overall Length: 4.0 (0.157)
- Overall Length: 1.5 ± 0.1/-0.0 (0.059 ± .004/-0.000) DIA.
- Overall Length: 5.4 (0.213)
- Overall Length: 8.0 (0.315)
- Overall Length: 1.5 (0.059) DIA.

USER DIRECTION OF FEED

QTY: 2000 PCS. PER REEL

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

BOURNS®

www.bourns.com

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.