



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Low radiation
- Low buzz noise
- RoHS compliant\* and halogen free\*\*

## SRP5020CC Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q Min.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	Tol. %						
SRP5020CC-R10Y	0.10	30	5	190	2.7	3	20	36
SRP5020CC-R15Y	0.15	30	5	190	3.6	4	18	24
SRP5020CC-R22M	0.22	20	5	145	4.1	4.6	16	23
SRP5020CC-R33M	0.33	20	5	117	5.5	6.1	14	17
SRP5020CC-R47M	0.47	20	5	100	6.8	7.6	11.5	16
SRP5020CC-R68M	0.68	20	5	90	10.6	11.7	10	13
SRP5020CC-1R0M	1.0	20	10	64	13.8	15.2	9	10.5
SRP5020CC-1R5M	1.5	20	10	52	25.6	28.7	7	9.6
SRP5020CC-2R2M	2.2	20	10	38	36	41	5.5	8.8
SRP5020CC-3R3M	3.3	20	10	35	66	74	4	7
SRP5020CC-4R7M	4.7	20	10	30	95	109	3.2	6
SRP5020CC-6R8M	6.8	20	10	23	130	150	2.8	5
SRP5020CC-8R2M	8.2	20	10	20	150	171	2.6	4
SRP5020CC-100M	10	20	10	18	180	199	2.5	3.6

### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

### General Specifications

#### Operating Temperature

..... -40 °C to +125 °C  
(Temperature rise included)

#### Storage Temperature (Component)

..... -40 °C to +125 °C

#### Temperature Rise .....40 °C at rated I<sub>rms</sub><sup>1</sup> Rated Current

..... Inductance drops 30 % at I<sub>sat</sub>

#### Moisture Sensitivity Level..... 1

#### ESD Classification (HBM)..... N/A

<sup>1</sup>Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

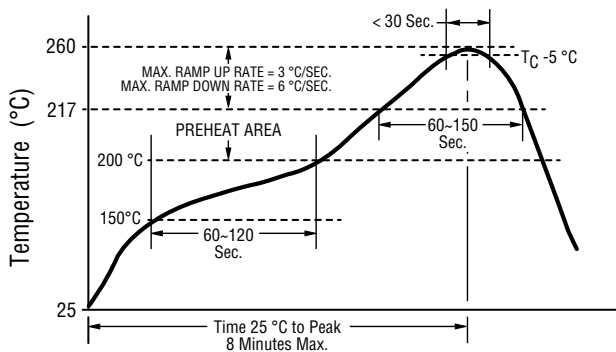
Core.....Carbonyl powder

Wire.....Enameled copper

Terminal Finish..... Sn

Packaging..... 3000 pcs. per 13-inch reel

### Soldering Profile



Time (Seconds)

REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat	
- Temperature Min. (T <sub>smin</sub> )	150 °C
- Temperature Max. (T <sub>smax</sub> )	200 °C
- Time (t <sub>s</sub> ) from T <sub>smin</sub> to T <sub>smax</sub>	60-120 seconds
Ramp-up Rate (T <sub>L</sub> to T <sub>p</sub> )	3 °C/second max.
Liquidous temperature (T <sub>L</sub> )	217 °C
Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	60-120 seconds
Peak package body temperature (T <sub>p</sub> )	260 °C
Time within 5 °C of Actual Peak Temperature (t <sub>p</sub> )	<30 seconds
Ramp-Down Rate (T <sub>p</sub> to T <sub>L</sub> )	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.



### WARNING Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

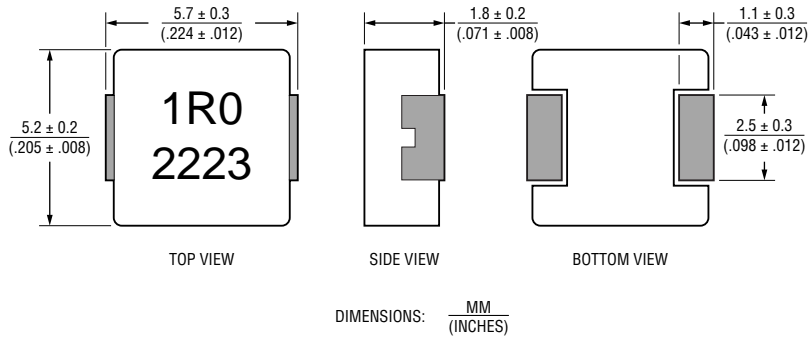
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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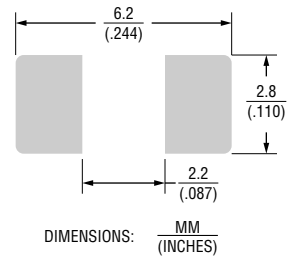
# SRP5020CC Series - Shielded Power Inductors

**BOURNS®**

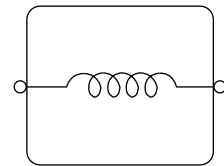
## Product Dimensions



## Recommended Layout



## Electrical Schematic



## How to Order

**SRP5020CC - R10Y**

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

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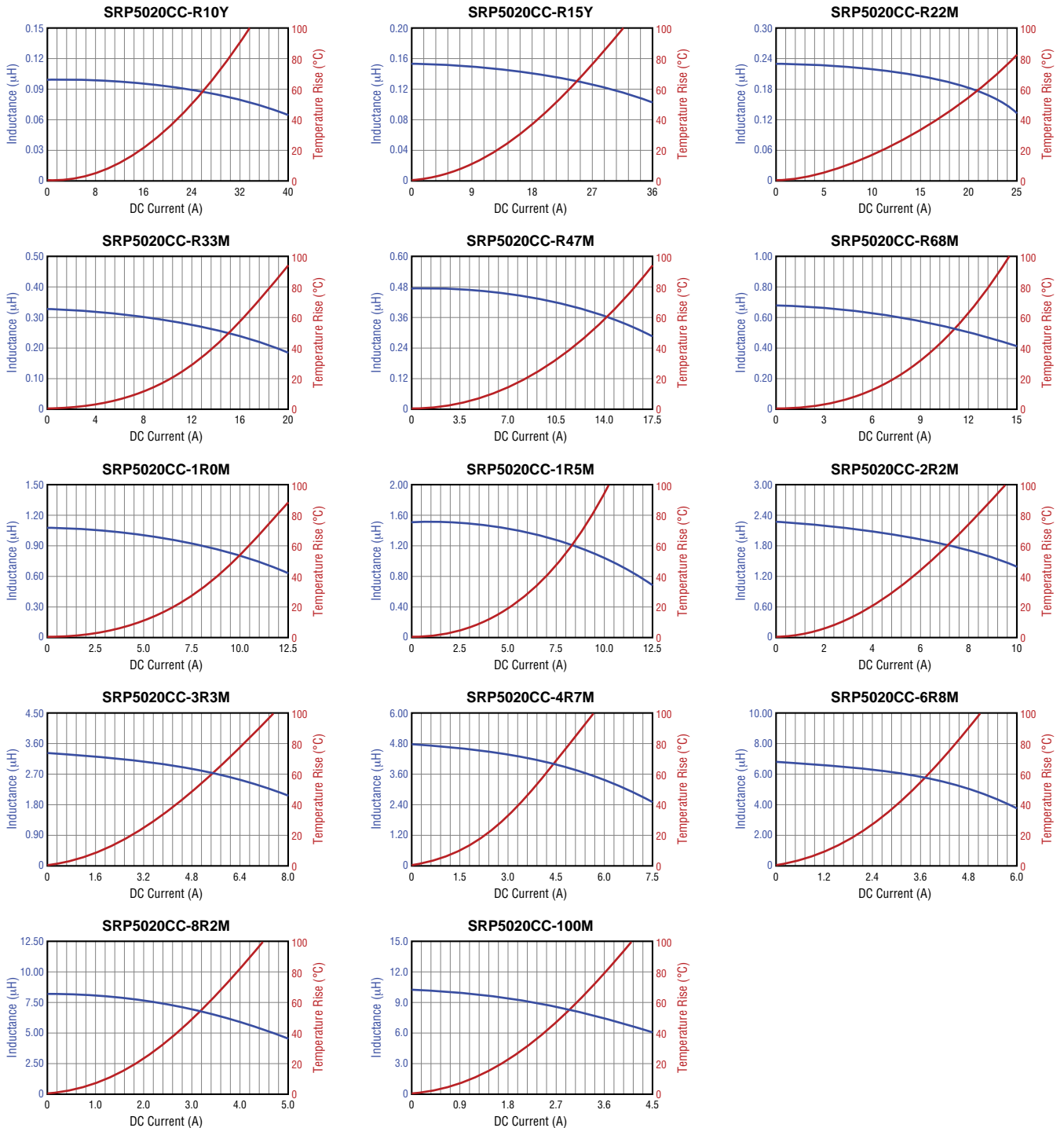
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## L vs. IDC and Temperature vs. IDC Curves

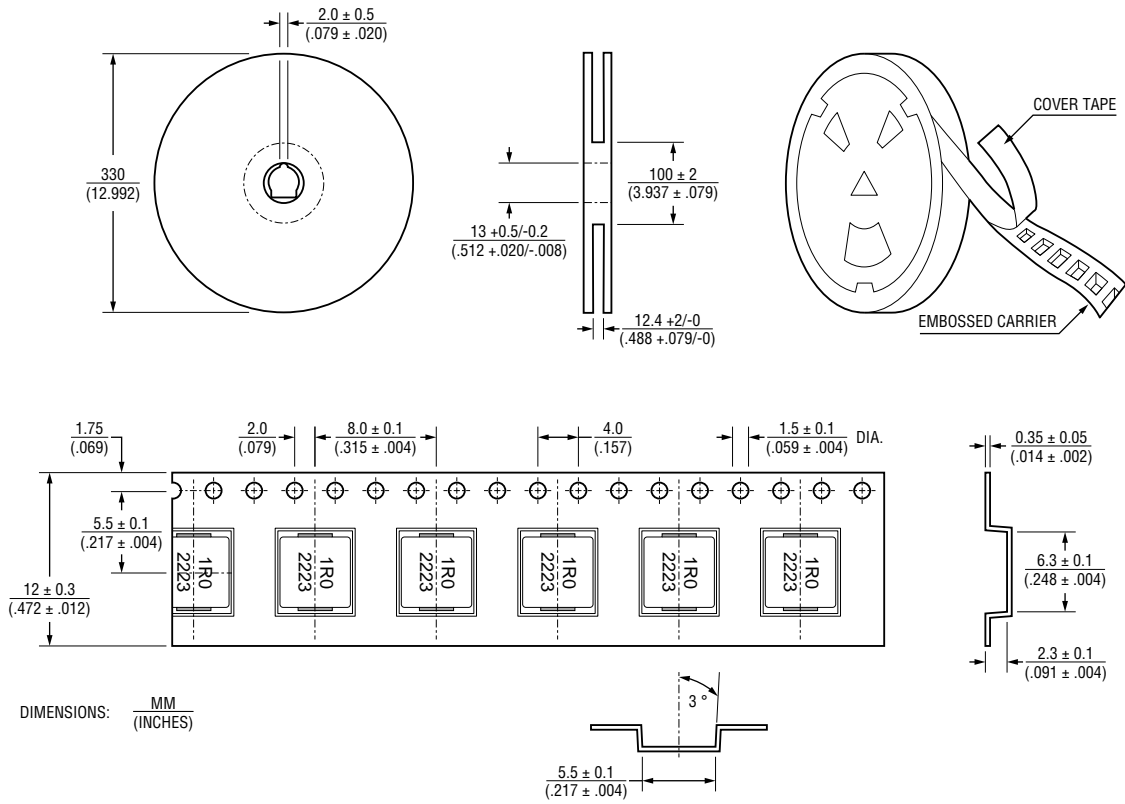


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# SRP5020CC Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED →  
QTY: 3000 PCS. PER REEL

**BOURNS®**

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The Americas: Tel: +1-951 781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

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