

## Features

- Shielded construction
- Metal alloy powder core
- High heating current
- Low radiation
- Low buzz noise
- RoHS compliant\* and halogen free\*\*

## SRP2313CC 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. %						
SRP2313CC-R68M	0.68	20	30	35	0.6	0.72	75	90
SRP2313CC-1R0M	1.0	20	60	23	0.8	0.95	70	60
SRP2313CC-1R5M	1.5	20	60	21	1.0	1.15	62	52
SRP2313CC-2R2M	2.2	20	60	19	1.05	1.25	58	48
SRP2313CC-3R3M	3.3	20	60	15	1.5	1.75	49	41
SRP2313CC-4R7M	4.7	20	40	11	1.9	2.2	47	38
SRP2313CC-5R6M	5.6	20	40	10	2.3	2.7	43	37
SRP2313CC-6R8M	6.8	20	40	9	2.7	3.1	40	36
SRP2313CC-100M	10	20	40	7	3.8	4.15	33	28
SRP2313CC-220M	22	20	30	5	9.2	11	22	15
SRP2313CC-230M	23	20	30	5	9.2	11	22	15
SRP2313CC-330M	33	20	30	4	13.5	15.4	19	12
SRP2313CC-470M	47	20	20	3.5	17.3	20.8	17	12
SRP2313CC-680M	68	20	20	3	26.2	29.5	14	12
SRP2313CC-101M	100	20	20	2	36	40	11	9
SRP2313CC-151M	150	20	20	2	67	80	8	7

### Additional Information

Click these links for more information:



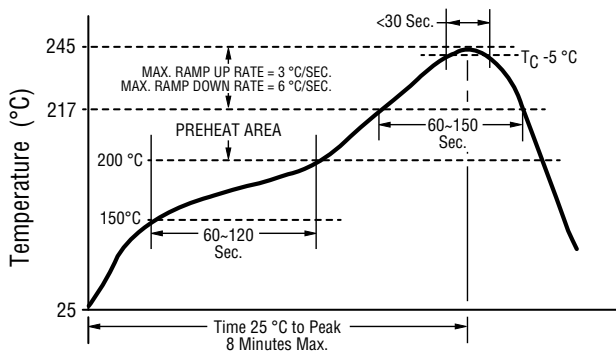
### General Specifications

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 ..... Metal alloy powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 80 pcs. per 13-inch reel

### Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T <sub>smin</sub> ) - Temperature Max. (T <sub>smax</sub> ) - Time (t <sub>s</sub> ) from T <sub>smin</sub> to T <sub>smax</sub>	150 °C 200 °C 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> ) Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	217 °C 60-120 seconds
Peak package body temperature (T <sub>p</sub> )	245 °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.

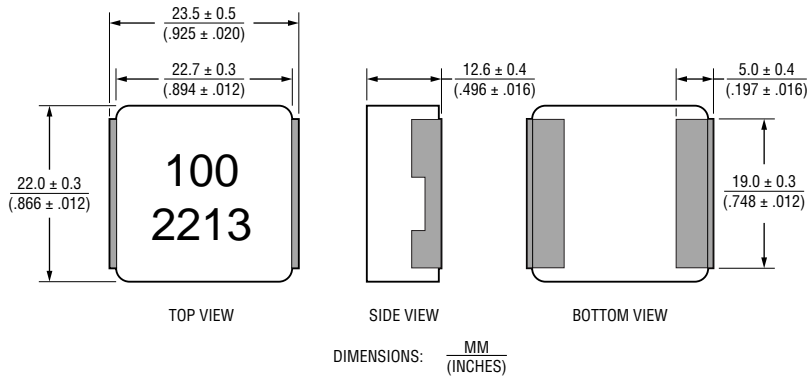
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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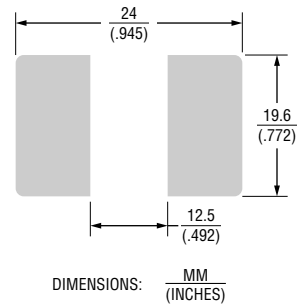
# SRP2313CC Series - Shielded Power Inductors

**BOURNS®**

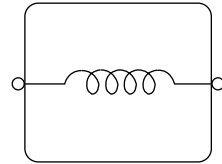
## Product Dimensions



## Recommended Layout



## Electrical Schematic

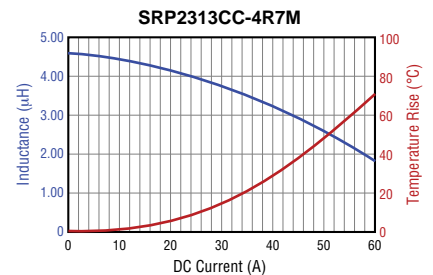
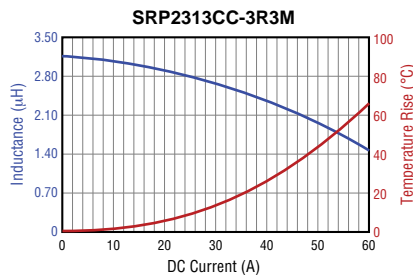
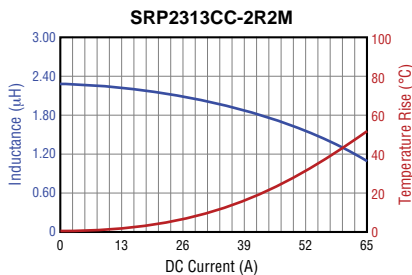
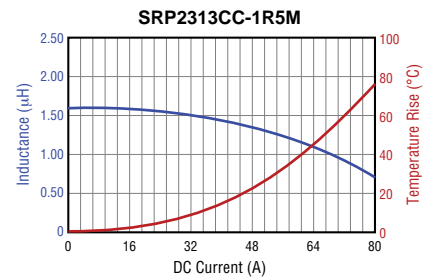
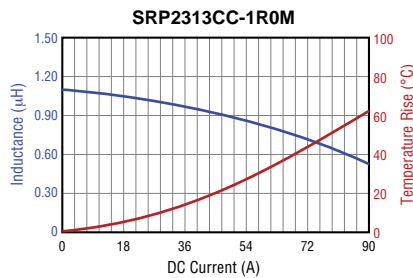
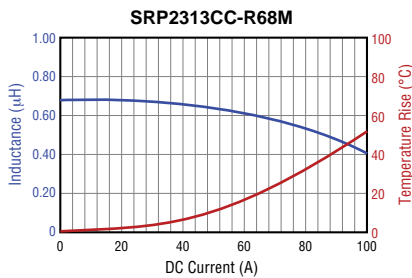


## How to Order

**SRP2313CC - R68M**

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

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



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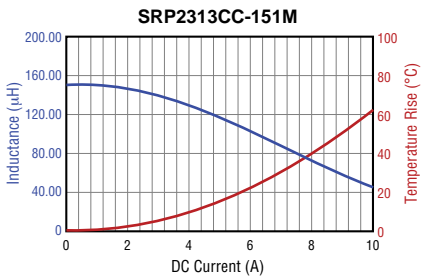
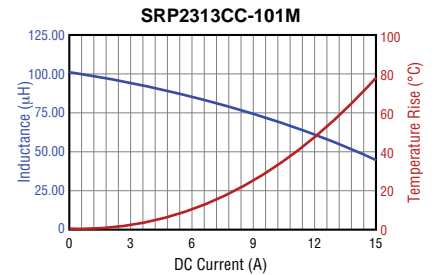
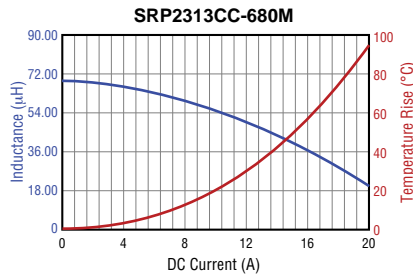
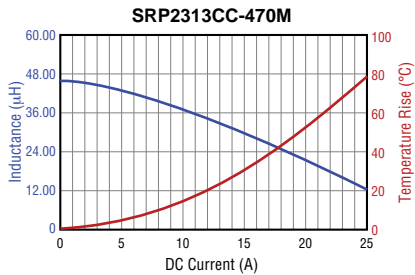
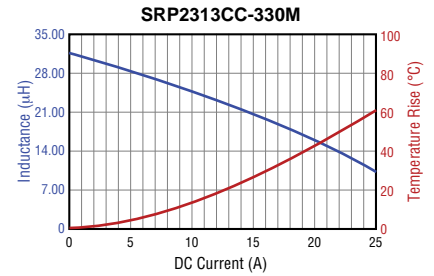
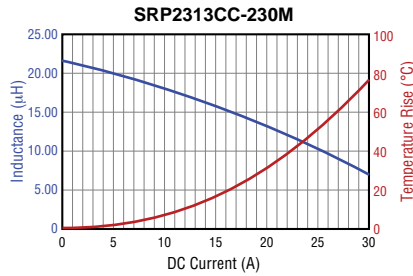
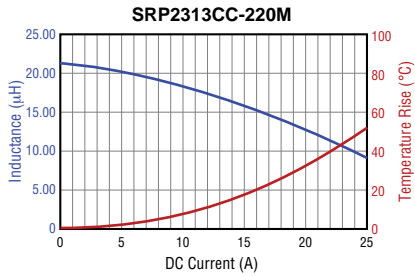
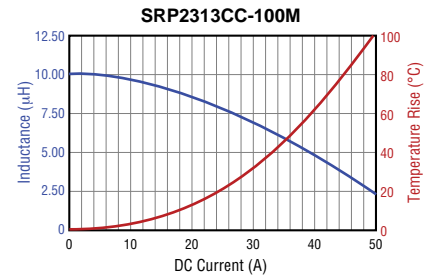
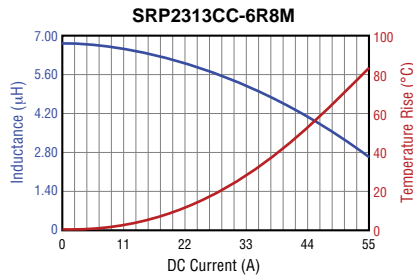
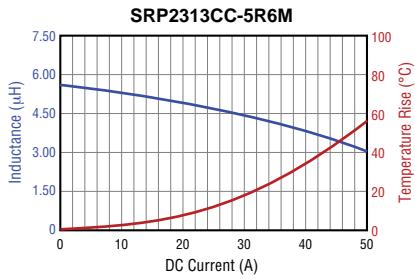
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# SRP2313CC Series - Shielded Power Inductors



## L vs. IDC and Temperature vs. IDC Curves (continued)





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