

#### **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

	Inductance @ 100 kHz / 1 V			SRF (MHz)	DCR (mΩ)	DCR (mΩ)	Irms (A)	Isat (A)
Bourns Part No.	<b>L (μH)</b>	Tol. %	Q Min.	Typ.	Typ.	Max.	Typ.	Typ.
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:











<u>PRODUCT</u> SELECTOR

TECHNICAL LIBRARY

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#### 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>¹
Rated Current

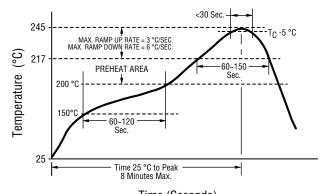
.....Inductance drops 30 % at I<sub>sat</sub>
Moisture Sensitivity Level......1
ESD Classification (HBM).....N/A

<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**



Time (Seconds)

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 60-150 seconds
Peak package body temperature (Tp)	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

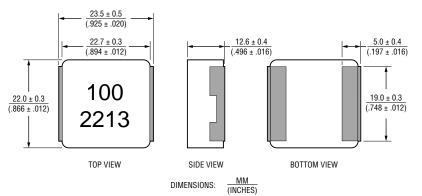
<sup>\*</sup> RoHS Directive 2015/863, Mar 31, 2015 and Annex.

<sup>\*\*</sup> 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.

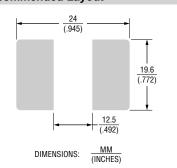
# **SRP2313CC Series - Shielded Power Inductors**

### BOURNS

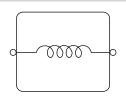
#### **Product Dimensions**



#### Recommended Layout

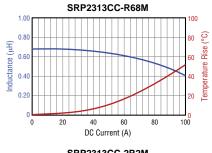


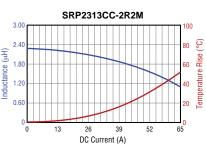
#### **Electrical Schematic**

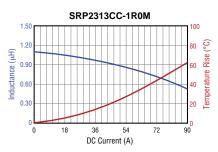


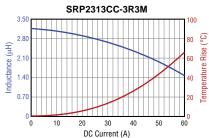
#### **How to Order**

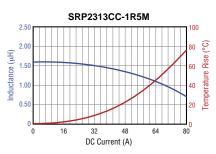
#### L vs. IDC and Temperature vs. IDC Curves

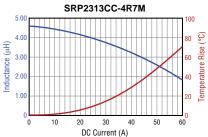






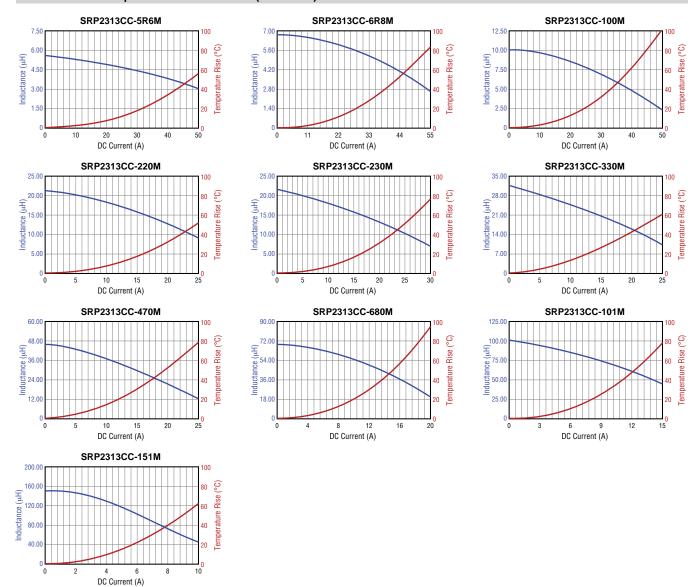






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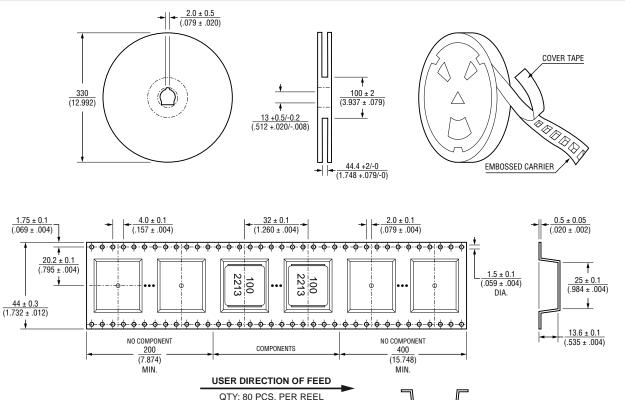
#### L vs. IDC and Temperature vs. IDC Curves (continued)



## **SRP2313CC Series - Shielded Power Inductors**

### BOURNS

#### **Packaging Specifications**



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

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