



## Features

- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Wide side terminal for enhanced mechanical strength
- High vibration resistance (15 G typical)
- High operating temperature
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP5030WA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q Typ. @ 100 kHz	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	Tol. %						
SRP5030WA-R68M	0.68	20	20	72	8.5	9.7	12	11.7
SRP5030WA-1R0M	1.0	20	20	55	10	11.5	10.5	8.0
SRP5030WA-1R5M	1.5	20	20	42	15.4	17.7	8.5	6.5
SRP5030WA-2R2M	2.2	20	20	33	20	23	7.5	5.8
SRP5030WA-3R3M	3.3	20	20	27	31	36	6.0	5.4
SRP5030WA-4R7M	4.7	20	20	22	49	57	5.2	4.5
SRP5030WA-5R6M	5.6	20	20	20	61	71	4.4	4.3
SRP5030WA-6R8M	6.8	20	20	18	72	83	4.0	4.0
SRP5030WA-100M	10	20	20	16	97	111	3.0	2.4
SRP5030WA-150M	15	20	20	12	165	190	2.5	2.2
SRP5030WA-220M	22	20	20	10	205	235	2.2	2

### Additional Information

Click these links for more information:



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### General Specifications

#### Operating Temperature

..... -55 °C to +165 °C  
(Temperature rise included)

#### Storage Temperature (Component)

..... -55 °C to +165 °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

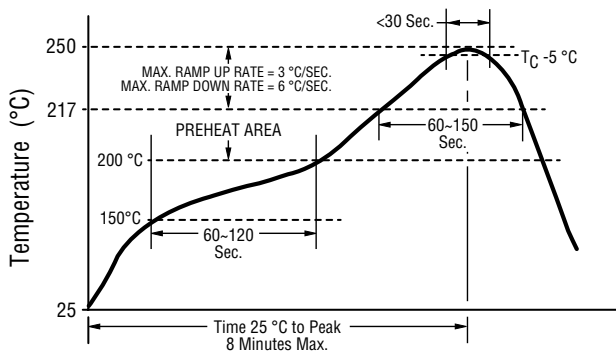
Core.....Metal alloy powder

Wire.....Enameled copper

Terminal Finish..... Sn

Packaging..... 2000 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 (T <sub>p</sub> )	250 °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.

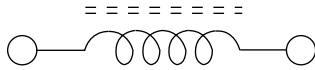
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP5030WA Series - Shielded Power Inductors

**BOURNS®**

## Electrical Schematic

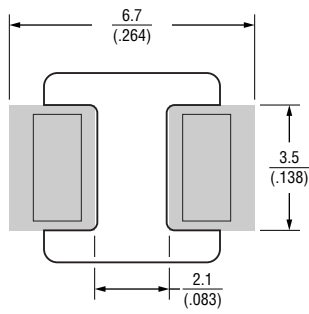


## How to Order

**SRP5030WA - R68M**

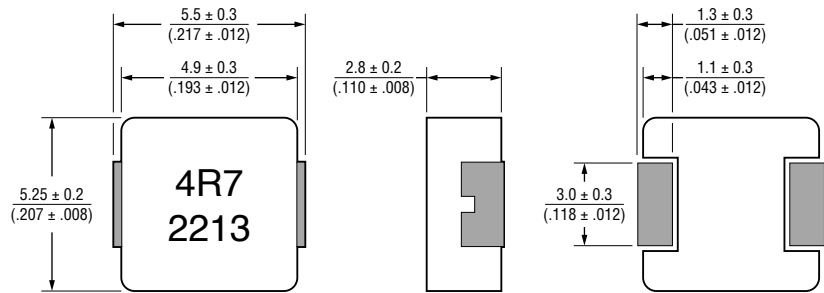
Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

## Recommended Layout



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

## Product Dimensions



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

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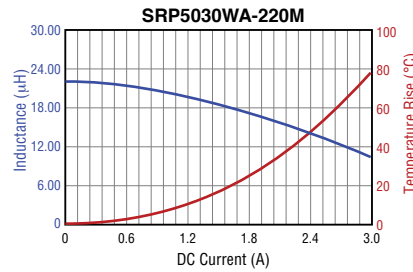
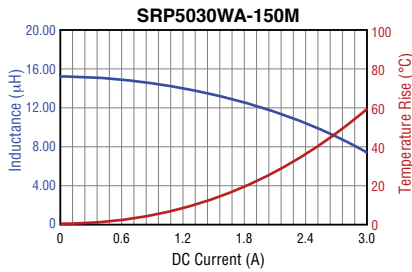
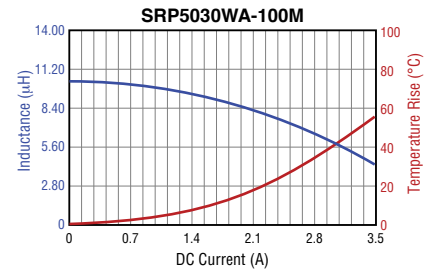
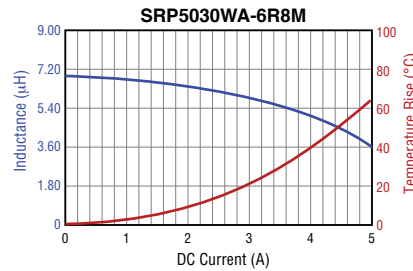
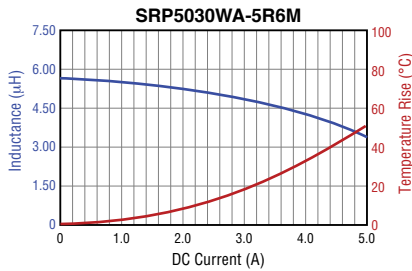
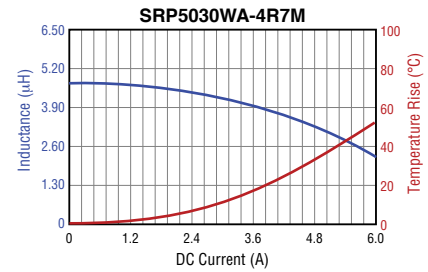
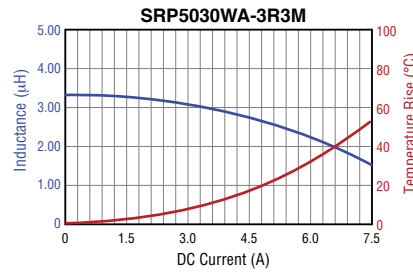
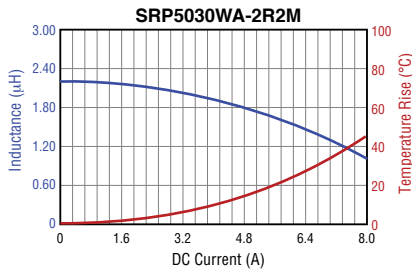
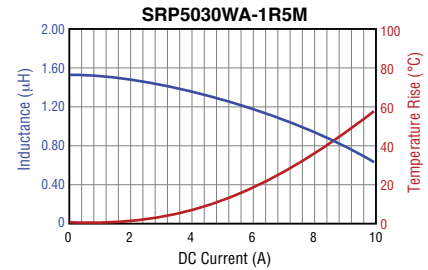
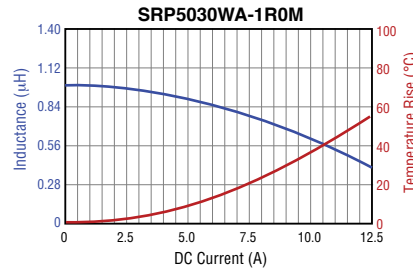
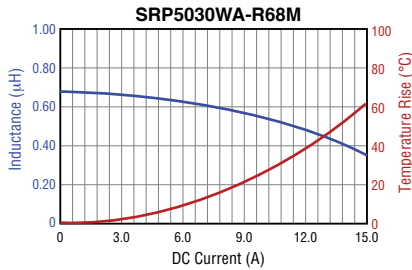
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## L vs. I Charts



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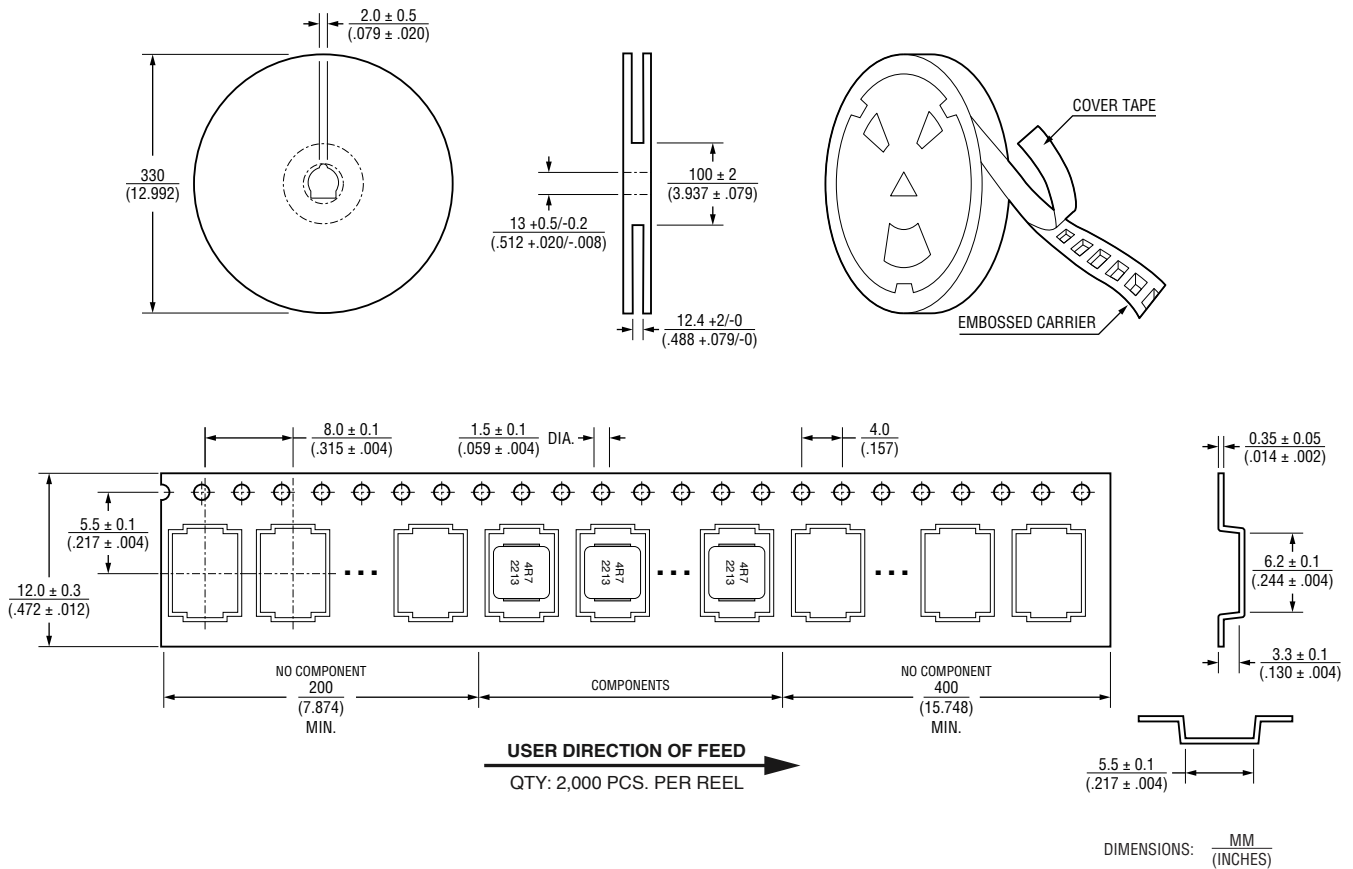
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# SRP5030WA Series - Shielded Power Inductors

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## Packaging Specifications



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