



## 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, 30 G peak)

- High operating temperature
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP6030WA 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. %						
SRP6030WA-R47M	0.47	20	15	66	3.4	3.74	19	19
SRP6030WA-1R0M	1.0	20	15	42	6.0	6.6	14	14.0
SRP6030WA-1R5M	1.5	20	15	40	10.6	11.7	11.5	13
SRP6030WA-2R2M	2.2	20	20	32	15	16.5	9	10.5
SRP6030WA-3R3M	3.3	20	20	25	22	24.2	7.8	9.5
SRP6030WA-4R7M	4.7	20	20	20	29	32	6.4	7.2
SRP6030WA-6R8M	6.8	20	20	17	42	46.2	5.2	6.1
SRP6030WA-8R2M	8.2	20	20	15	49	54	4.8	5.6
SRP6030WA-100M	10	20	20	13	63	69.3	4.2	4.7
SRP6030WA-150M	15	20	20	11	100	110	3.7	4.0
SRP6030WA-220M	22	20	20	9	150	165	2.9	3.0

### Additional Information

Click these links for more information:



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

### 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

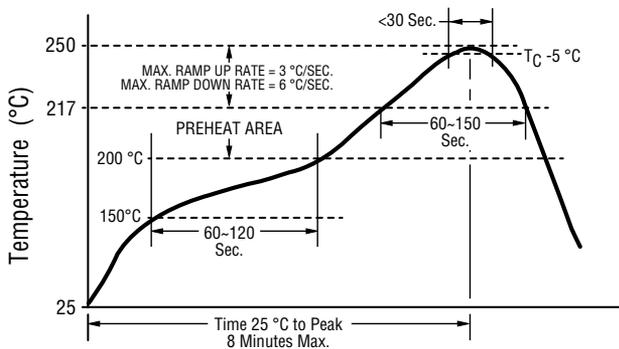
Core..... Metal alloy powder

Wire..... Enameled copper

Terminal Finish..... Sn

Packaging..... 1000 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>	60-150 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.

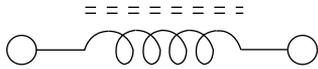
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP6030WA Series - Shielded Power Inductors

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## Electrical Schematic

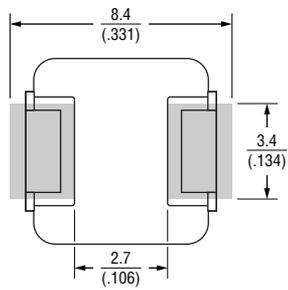


## How to Order

**SRP6030WA - R47M**

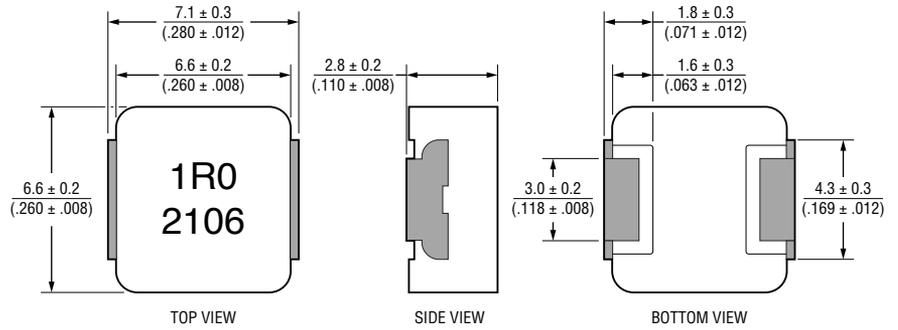
Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

## Recommended Layout



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

## Product Dimensions



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

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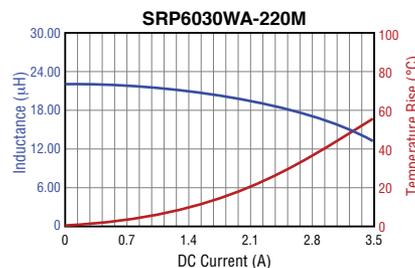
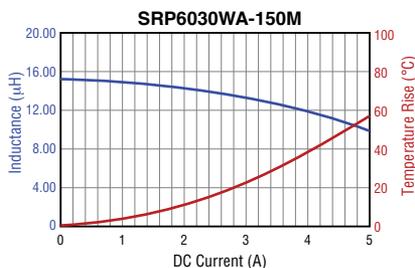
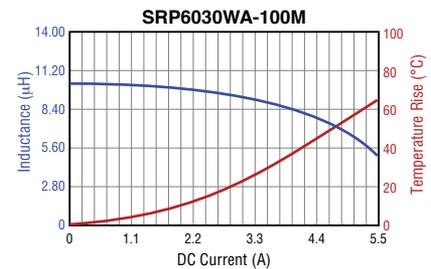
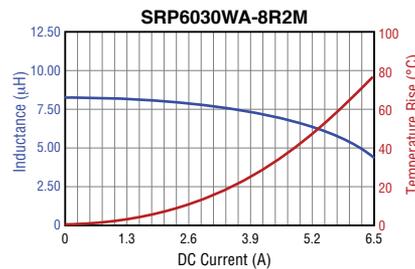
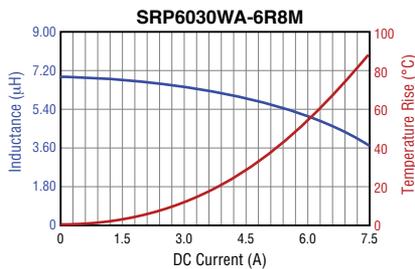
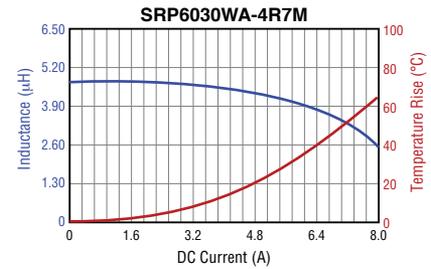
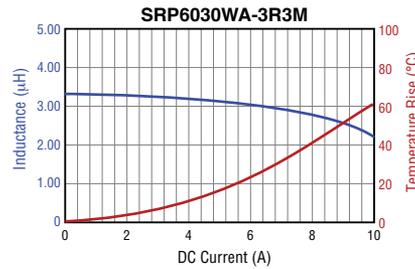
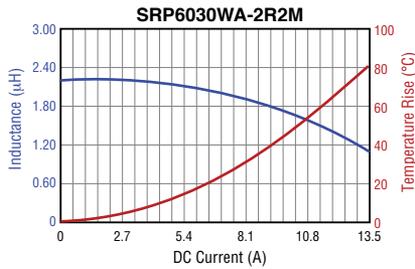
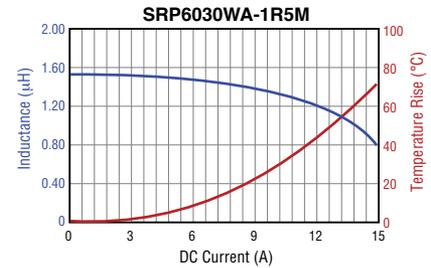
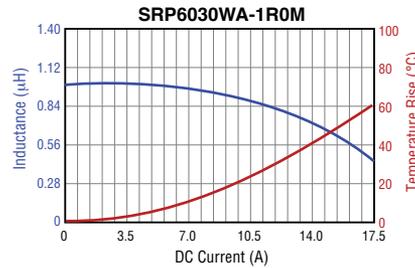
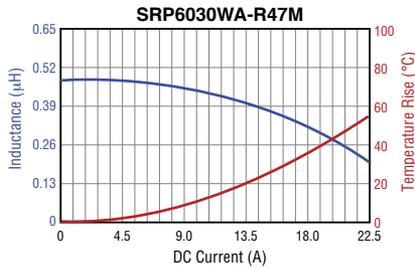
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## L vs. I Charts



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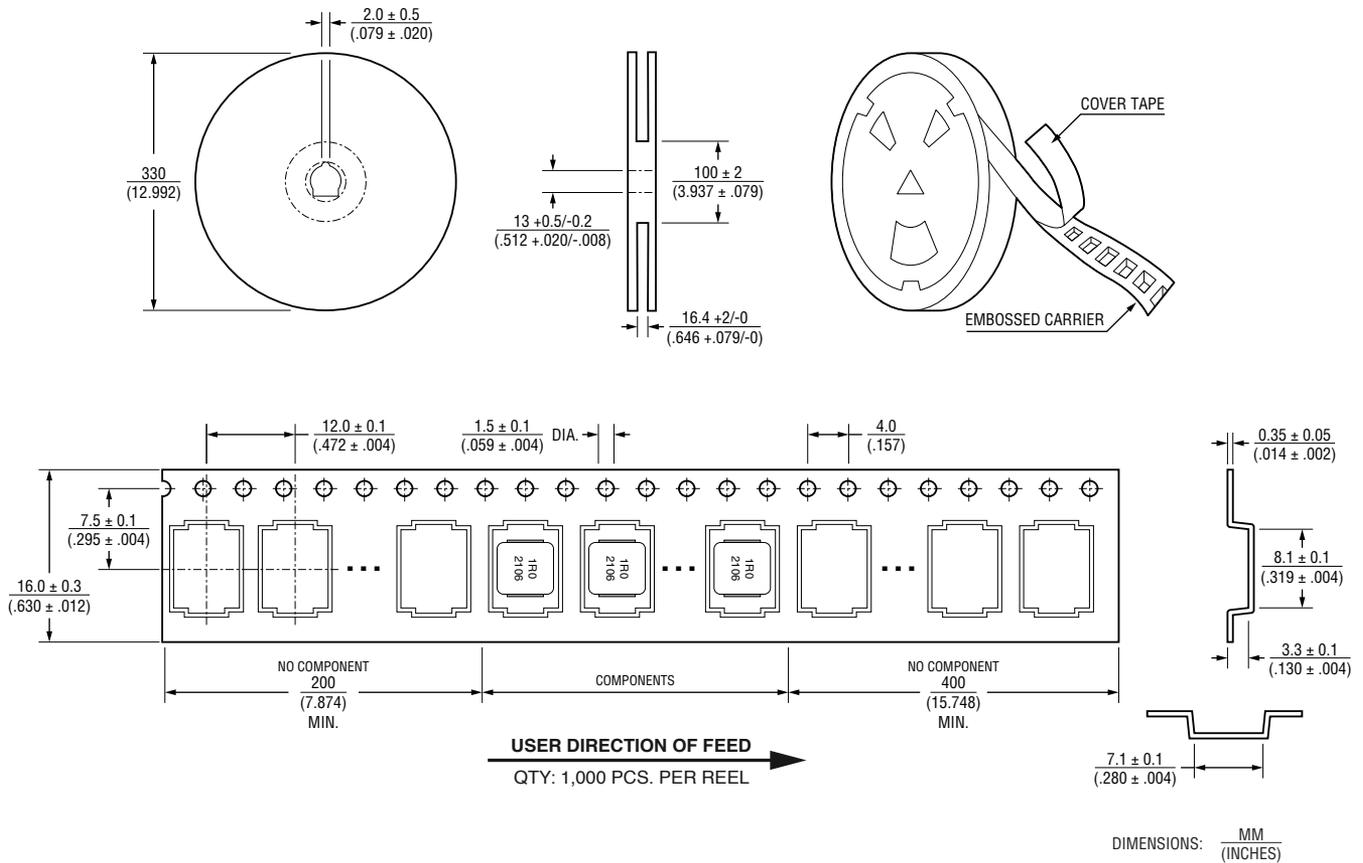
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# SRP6030WA Series - Shielded Power Inductors

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## Packaging Specifications



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