



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 _{rms} (A) Typ.	I _{sat} (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:



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_{rms}¹

Rated Current

..... Inductance drops 30 % at I_{sat}

Moisture Sensitivity Level..... 1

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

¹ 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

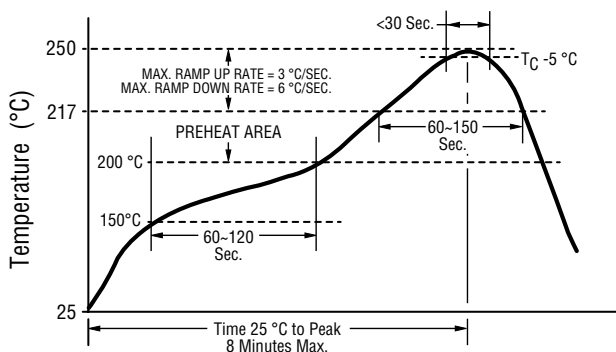
Core..... Metal alloy powder

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 _{smin})	150 °C
- Temperature Max. (T _{smax})	200 °C
- Time (t _s) from T _{smin} to T _{smax}	60-120 seconds
Ramp-up Rate (T _L to T _p)	3 °C/second max.
Liquidous temperature (T _L)	217 °C
Time (t _L) maintained above T _L	60-120 seconds
Peak package body temperature (T _p)	250 °C
Time within 5 °C of Actual Peak Temperature (t _p)	<30 seconds
Ramp-Down Rate (T _p to T _L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.



CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.

See www.P65Warnings.ca.gov

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

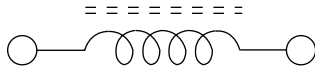
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

SRP6030WA Series - Shielded Power Inductors

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Electrical Schematic

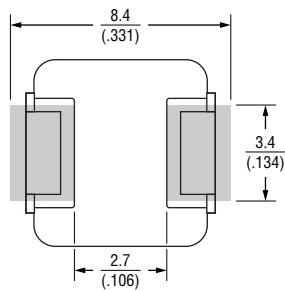


How to Order

SRP6030WA - R47M

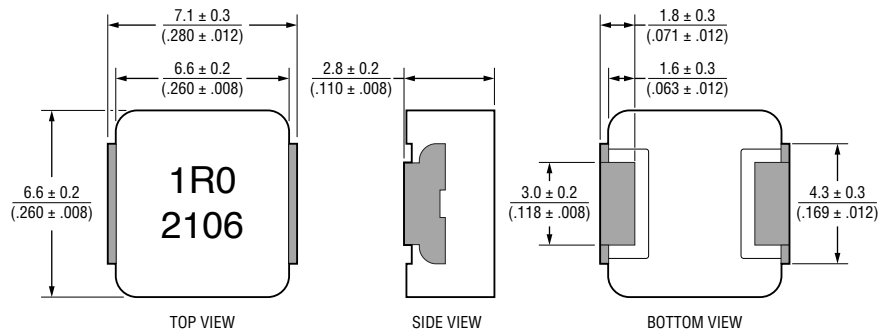
Model _____
Value Code (see table) _____

Recommended Layout

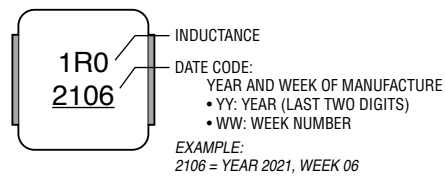


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Product Dimensions



Typical Part Marking



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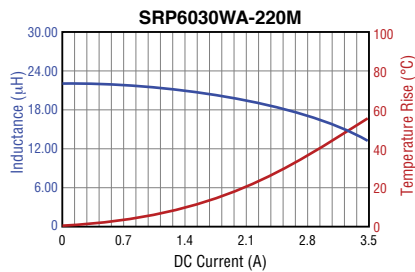
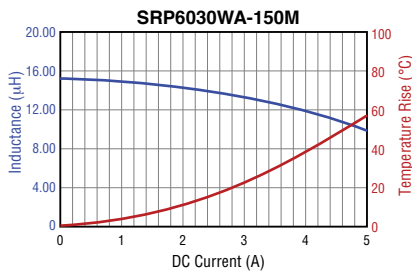
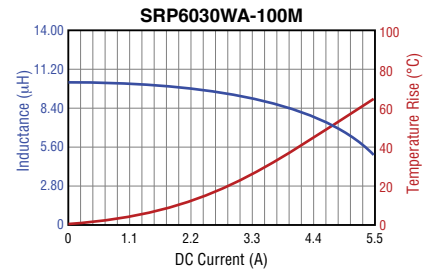
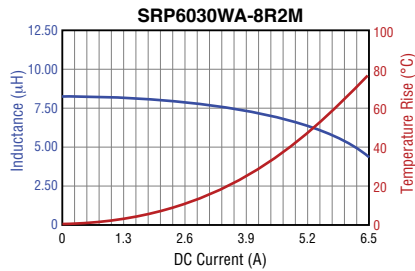
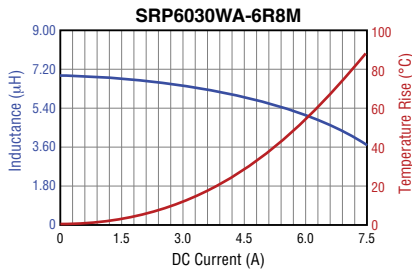
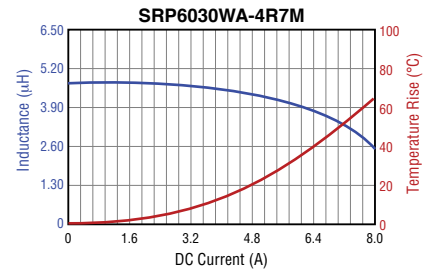
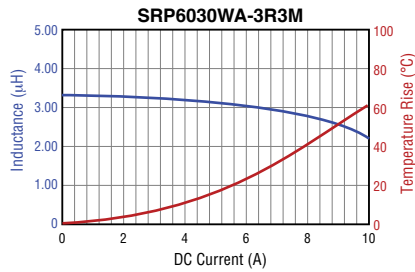
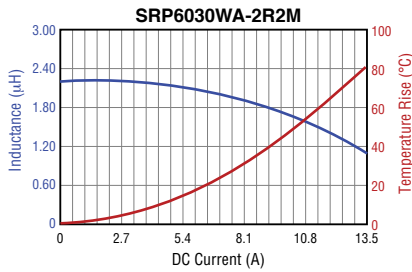
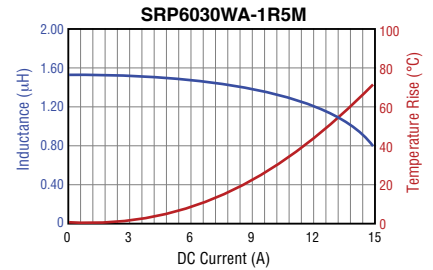
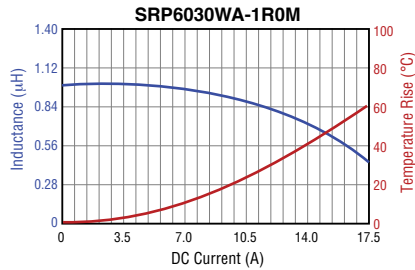
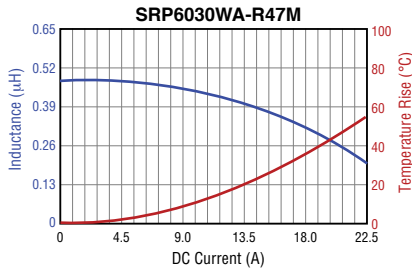
Users should verify actual device performance in their specific applications.

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L vs. I Charts



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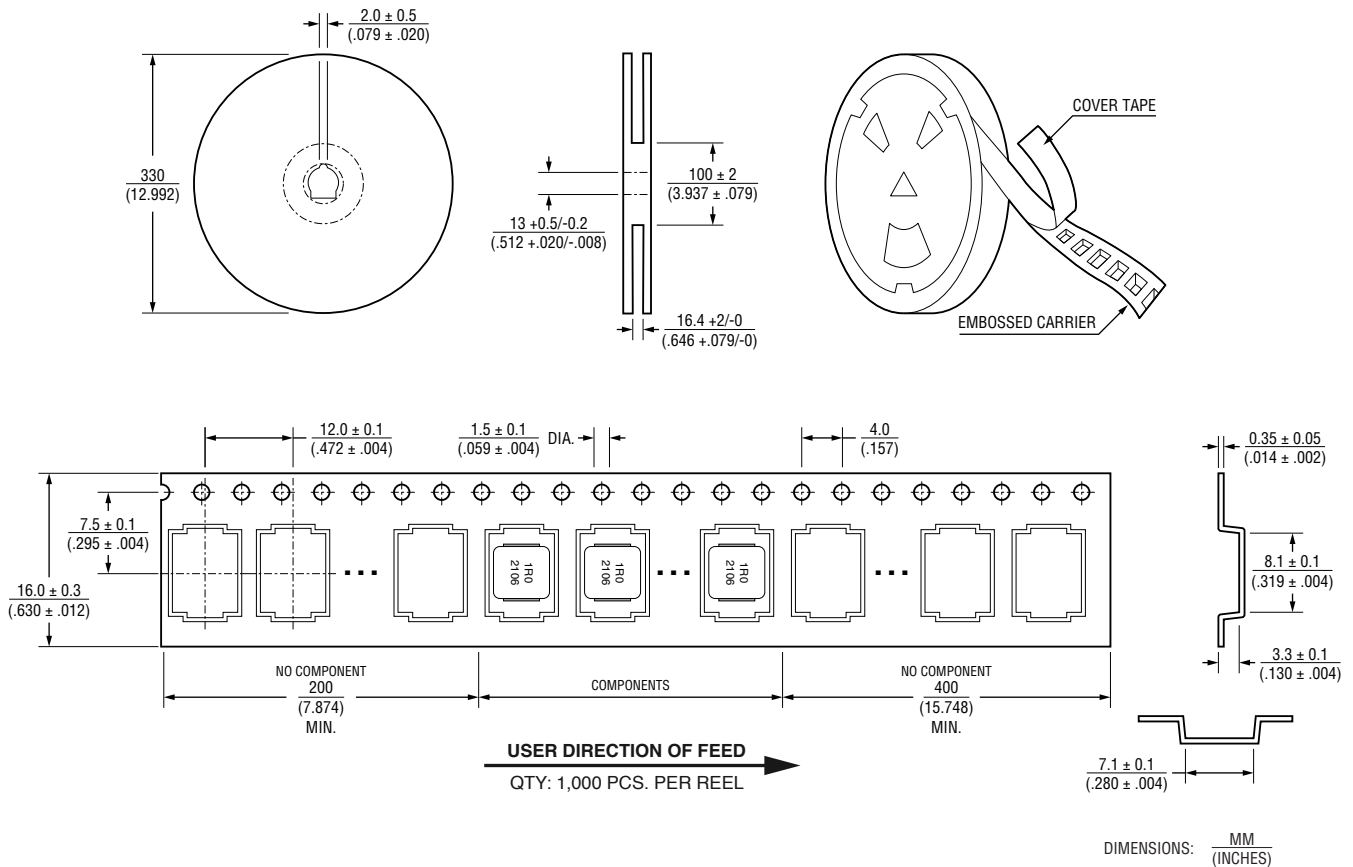
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Packaging Specifications



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Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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