

## Features

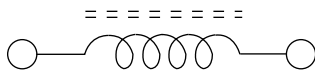
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- RoHS compliant\* and halogen free\*\*

## SRP3212 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.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. %						
SRP3212-R33M	0.33	20	3	132	10	13	8.5	9.1
SRP3212-R47M	0.47	20	3	100	16	19.2	7.0	8.2
SRP3212-R68M	0.68	20	5	83	20	24	6.2	7.3
SRP3212-1R0M	1.0	20	5	63	26	32	5.5	6.5
SRP3212-1R5M	1.5	20	5	43	44	53	4.4	5.0
SRP3212-2R2M	2.2	20	5	41	61	73	4.0	4.8
SRP3212-3R3M	3.3	20	5	28	87	101	3.1	3.4
SRP3212-4R7M	4.7	20	5	25	122	146	2.2	2.8

### Electrical Schematic



### How to Order

SRP3212 - R33M

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

### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [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 Irms<sup>1</sup> Rated Current

..... Inductance drops 30 % at Isat

#### Moisture Sensitivity Level..... 1

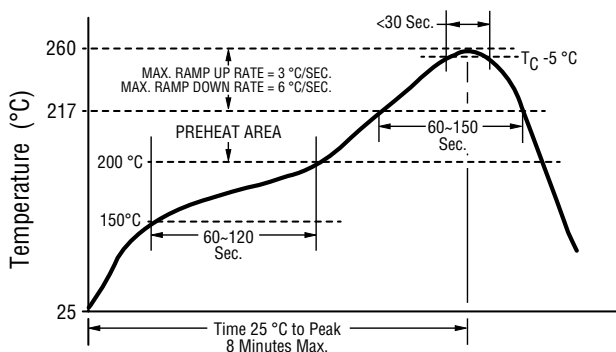
#### ESD Classification (HBM)..... N/A

<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.....Ag/Ni/Sn  
Packaging..... 2000 pcs. per 7-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> )	260 °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.

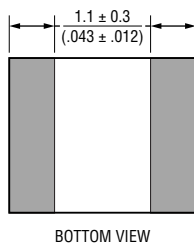
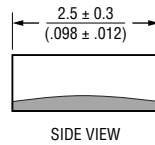
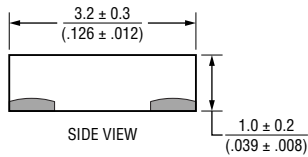
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP3212 Series - Shielded Power Inductors

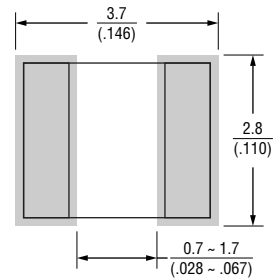
**BOURNS®**

## Product Dimensions



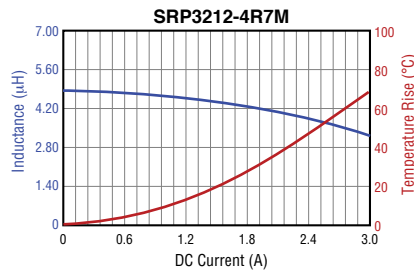
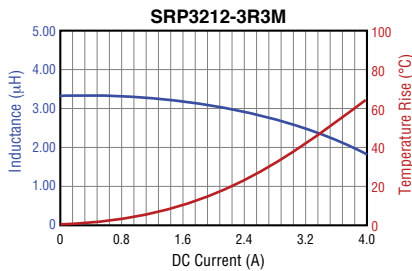
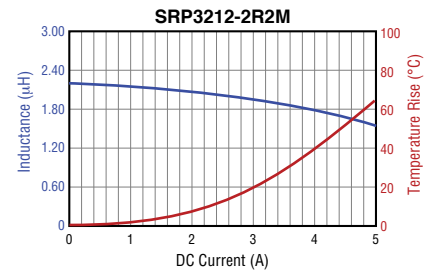
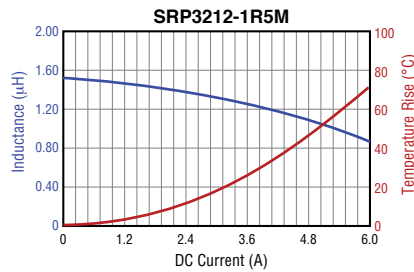
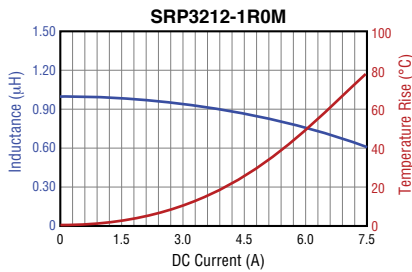
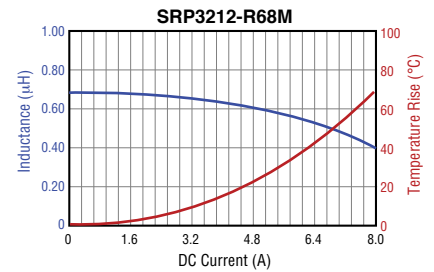
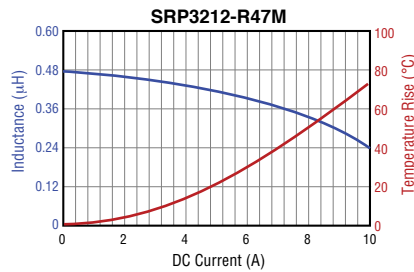
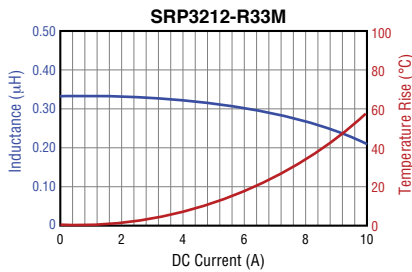
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Recommended Layout



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

## L vs. I Charts



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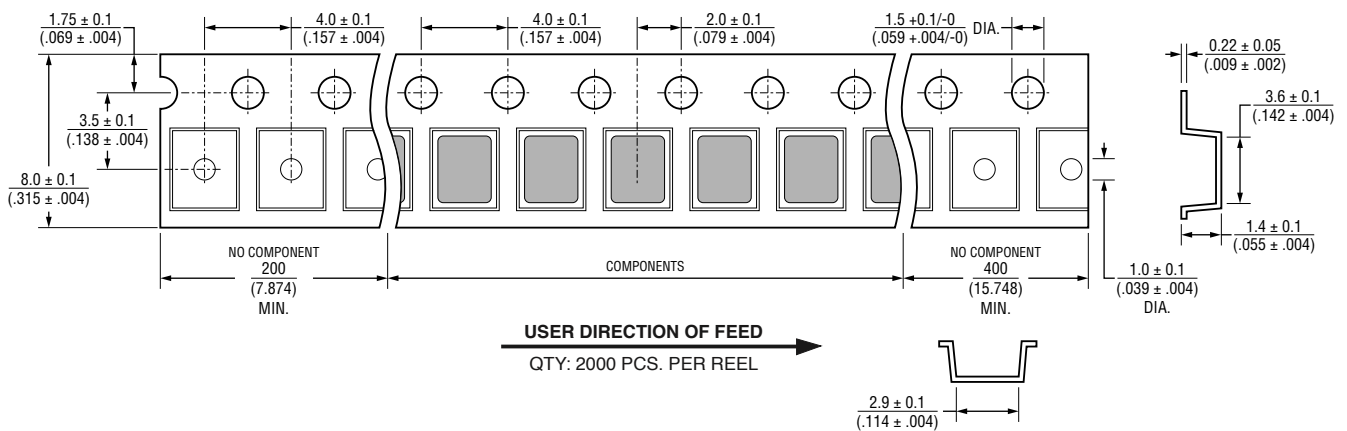
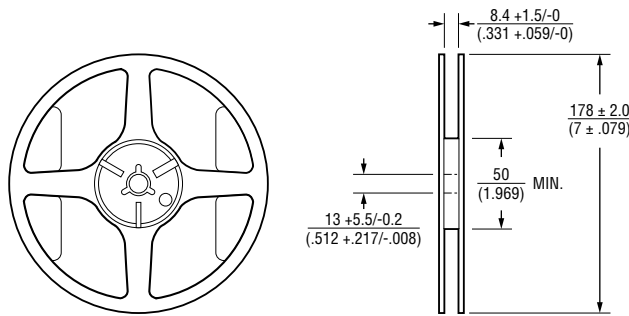
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# SRP3212 Series - Shielded Power Inductors

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## Packaging Specifications



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

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

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

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