



Features

- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR

- AEC-Q200 compliant
- RoHS compliant* and halogen free**

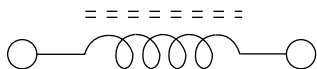
BOURNS®

SRP3212A 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. %						
SRP3212A-R33M	0.33	20	3	132	10	13	8.5	9.1
SRP3212A-R47M	0.47	20	3	100	16	19	7.0	8.2
SRP3212A-R68M	0.68	20	5	83	20	24	6.2	7.3
SRP3212A-1R0M	1.0	20	5	63	26	32	5.5	6.5
SRP3212A-1R5M	1.5	20	5	43	44	53	4.4	5.0
SRP3212A-2R2M	2.2	20	5	41	61	73	4.0	4.8
SRP3212A-3R3M	3.3	20	5	28	87	101	3.1	3.4
SRP3212A-4R7M	4.7	20	5	25	122	146	2.2	2.8

Electrical Schematic



How to Order

SRP3212A - 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 +150 °C
(Temperature rise included)

Storage Temperature (Component)

..... -40 °C to +150 °C

Temperature Rise ... 40 °C at rated Irms¹

Rated Current

..... Inductance drops 30 % at Isat

Moisture Sensitivity Level..... 1

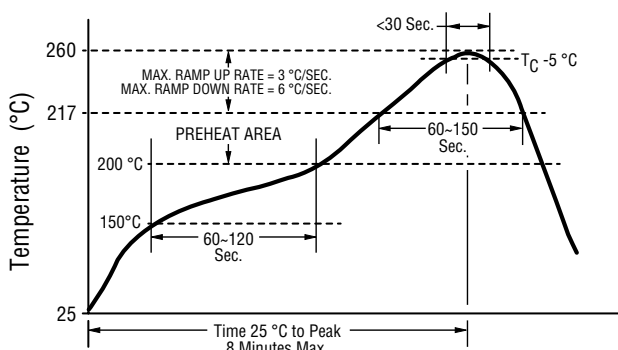
ESD Classification (HBM)..... N/A

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.....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 _{sm})	150 °C
- Temperature Max. (T _{smax})	200 °C
- Time (t _s) from T _{sm} 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	60-150 seconds
Peak package body temperature (T _p)	260 °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.



WARNING Cancer and Reproductive Harm

www.P65Warnings.ca.gov

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

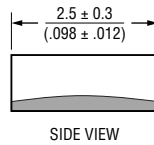
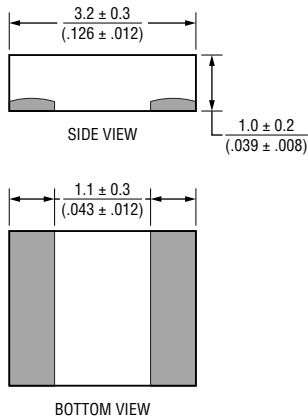
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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.

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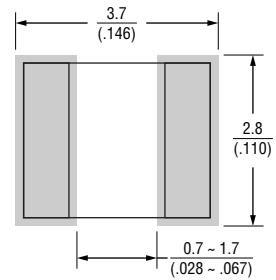
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Product Dimensions



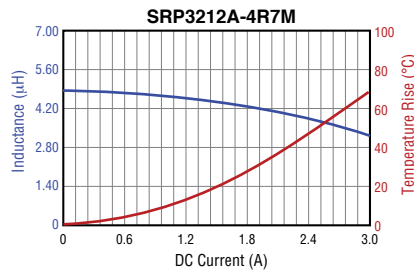
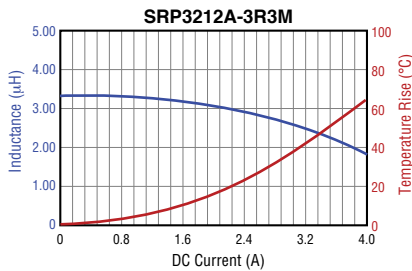
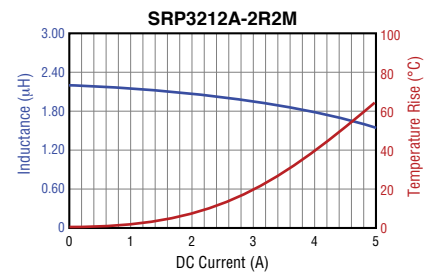
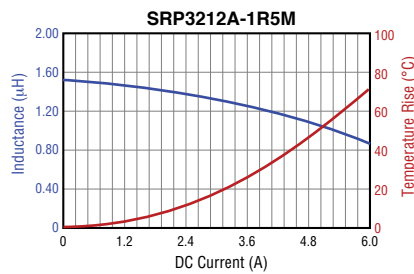
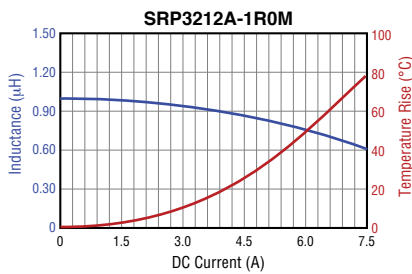
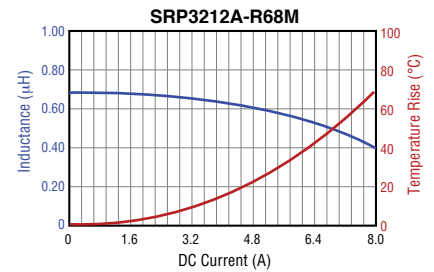
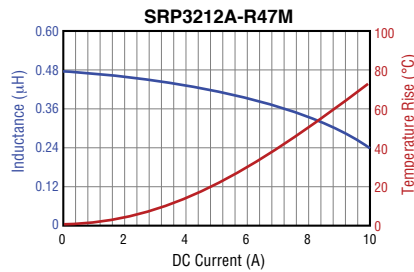
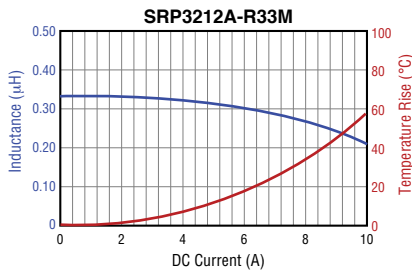
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Recommended Layout



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

L vs. I Charts



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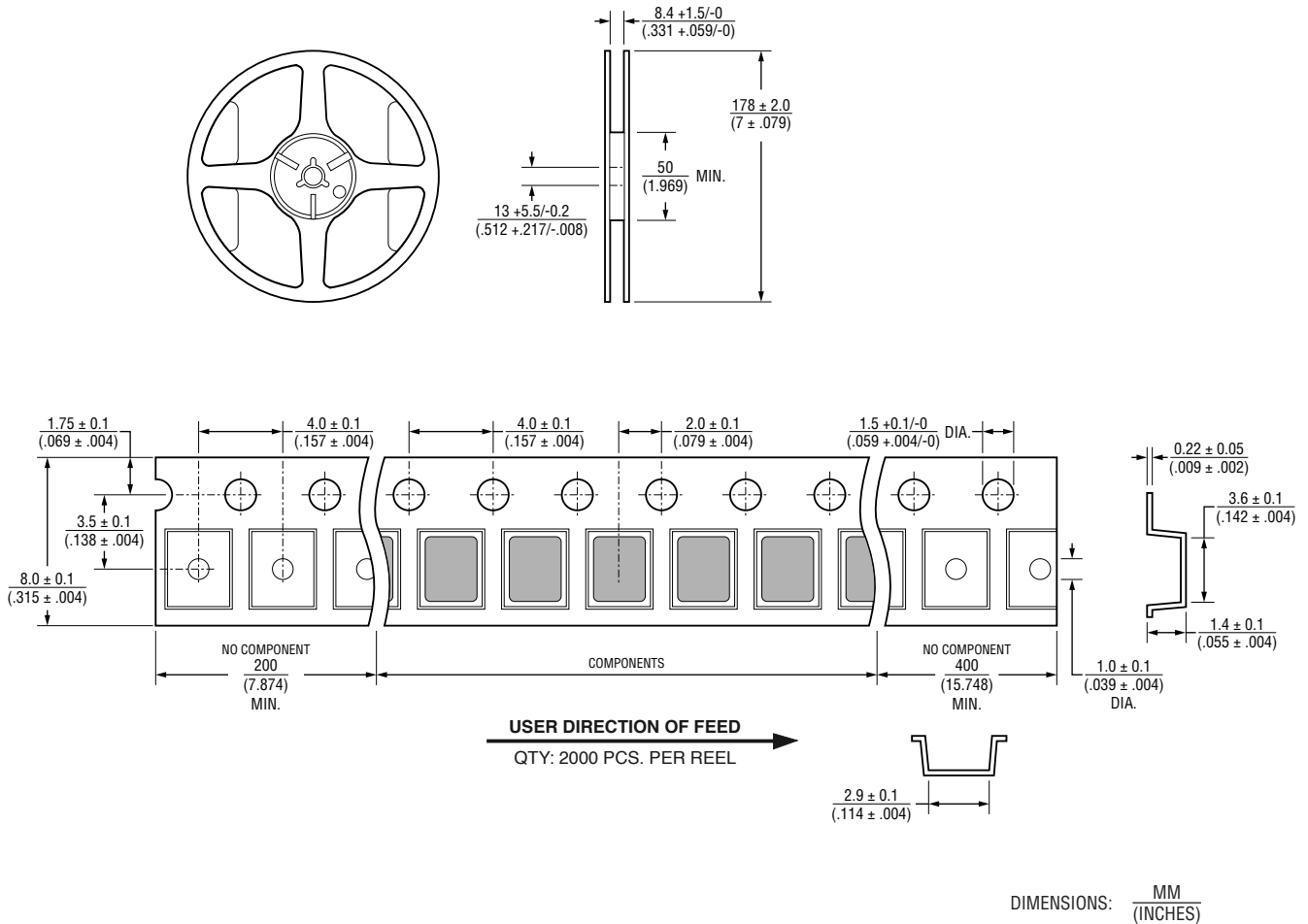
Users should verify actual device performance in their specific applications.

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Packaging Specifications



BOURNS®

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

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

www.bourns.com

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