



## Features

- Wirewound
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low profile
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Additional Information

Click these links for more information:

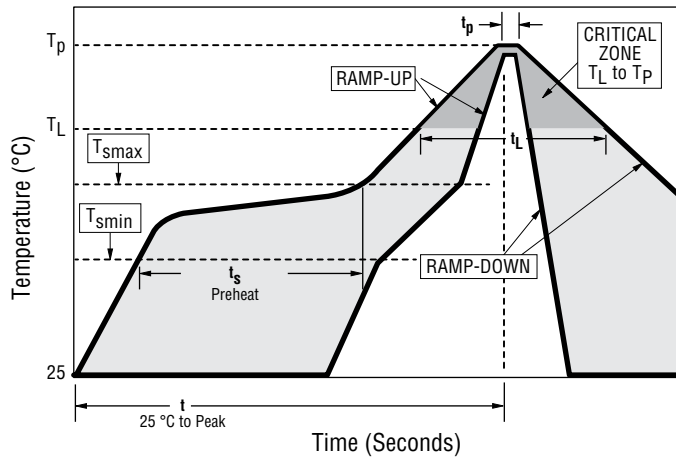


## SRP2512A Series – Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 MHz / 1 V		Q (Typ.) @ 1 MHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	ToL (%)						
SRP2512A-R47M	0.47	±20	39	129	21	25	4.6	5.3
SRP2512A-R68M	0.68	±20	39	104	29	35	3.7	5.0
SRP2512A-1R0M	1.0	±20	39	82	41	49	3.5	4.4
SRP2512A-1R5M	1.5	±20	39	71	64	77	2.5	3.2
SRP2512A-2R2M	2.2	±20	39	62	85	98	2.27	3.0
SRP2512A-3R3M	3.3	±20	39	50	125	150	2.0	2.1
SRP2512A-4R7M	4.7	±20	39	37	196	235	1.55	1.9

### Soldering Profile



Profile Feature	Pb Free Assembly
Average Ramp Rate (T <sub>Smax</sub> to T <sub>p</sub> )	3 °C/second max.
Preheat - Temperature Min. (T <sub>Smin</sub> ) - Temperature Max. (T <sub>Smax</sub> ) - Time (t <sub>Smin</sub> to t <sub>Smax</sub> )	150 °C 200 °C 60-180 seconds
Time Maintained Above - Temperature (T <sub>L</sub> ) - Time (t <sub>L</sub> )	217 °C 60-150 seconds
Peak Temperature (T <sub>p</sub> )	260 °C +0/-5 °C
Time within 5 °C of Actual Peak Temperature (T <sub>p</sub> )	20-40 seconds
Ramp-Down Rate	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.  
 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](http://www.bourns.com/docs/legal/disclaimer.pdf).

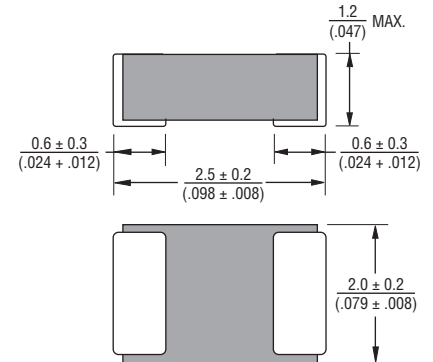
### General Specifications

Operating Temperature... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 ..... -50 °C to +125 °C  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Temperature Rise .....40 °C at rated I<sub>rms</sub>  
 Moisture Sensitivity Level (MSL) ..... 1  
 ESD Classification (HBM)..... N/A

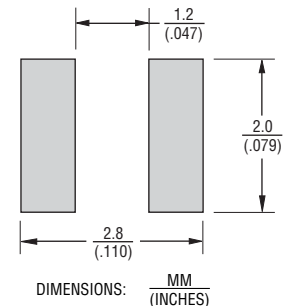
### Materials

Core.....Metal alloy powder  
 Wire .....Enameled copper  
 Terminal Finish ..... Sn  
 Packaging..... 3000 pcs. per 7-inch reel

### Product Dimensions



### Recommended Layout

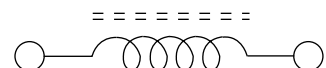


### How to Order

**SRP2512A - R47M**

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

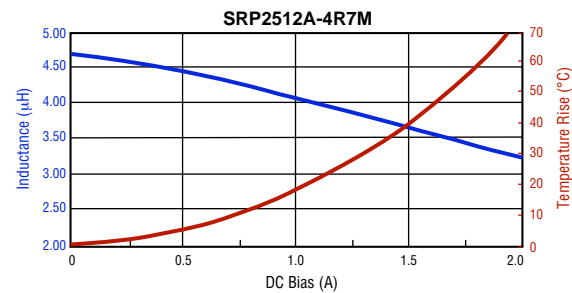
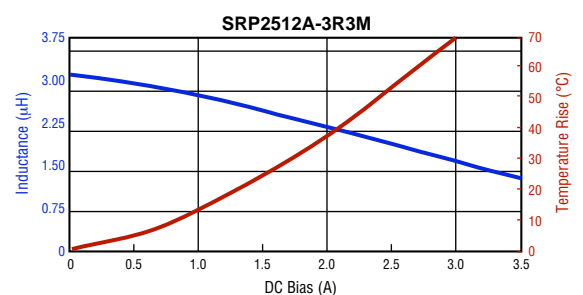
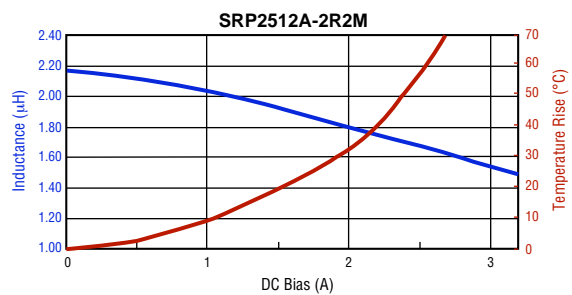
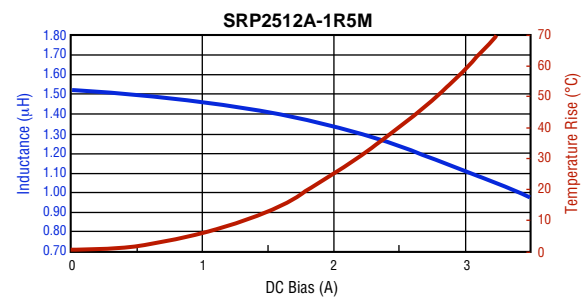
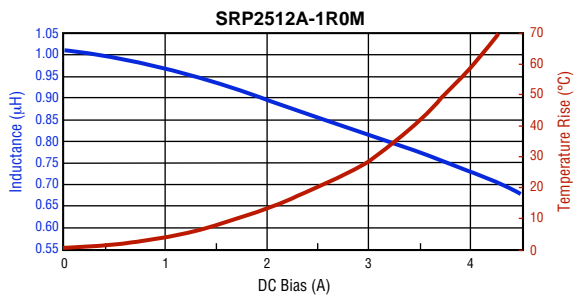
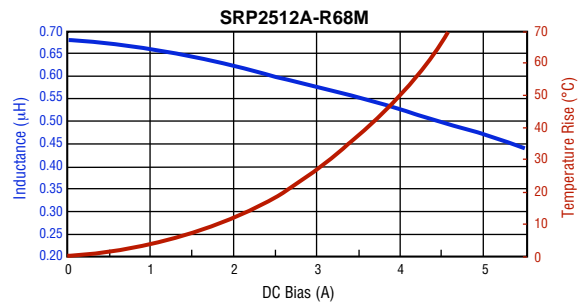
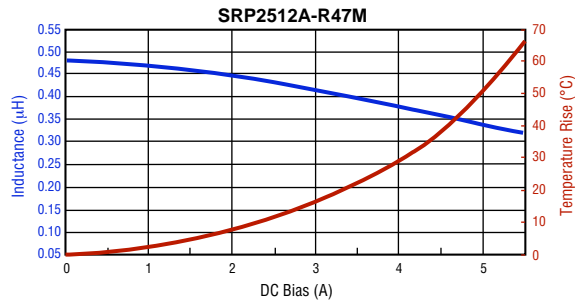
### Electrical Schematic



# SRP2512A Series - Shielded Power Inductors



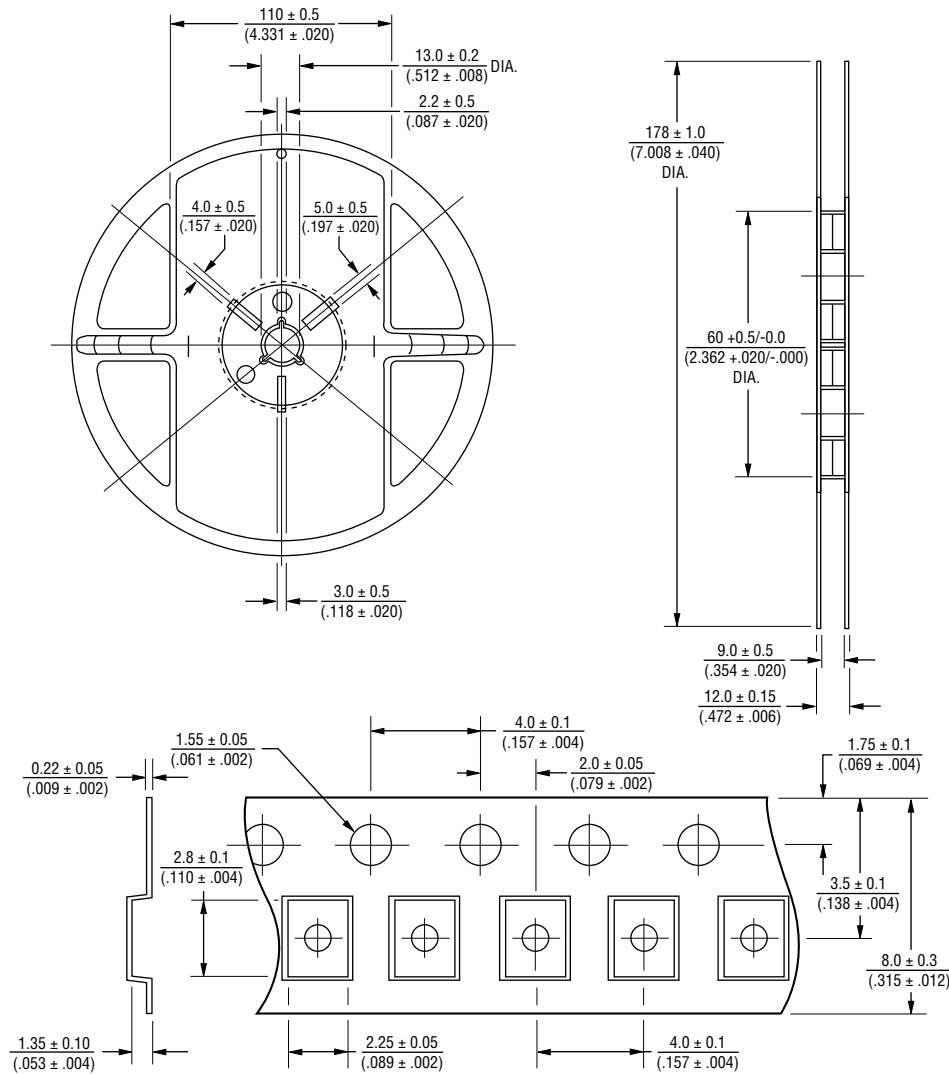
## L vs. I Charts



# SRP2512A Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED →  
QTY: 3,000 PCS. PER REEL

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

**BOURNS®**

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REV. 06/24

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Users should verify actual device performance in their specific applications.

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