



## Features

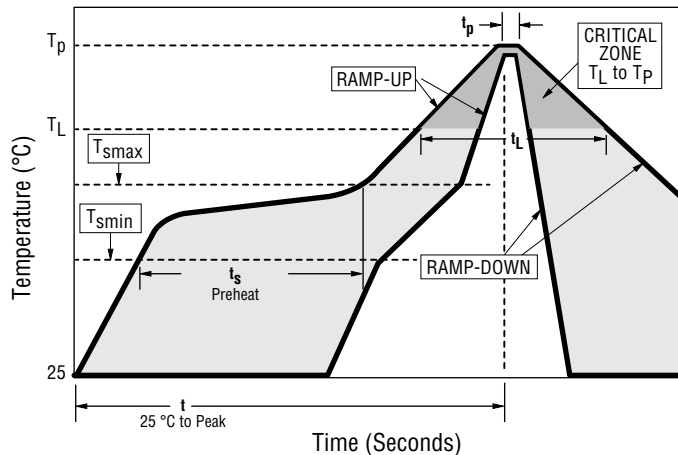
- Wirewound
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low profile
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## SRP2510A 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. (%)						
SRP2510A-R22M	0.22	±20	35	170	9	12.5	5.9	7.9
SRP2510A-R33M	0.33	±20	35	170	21	26	4.4	6.6
SRP2510A-R47M	0.47	±20	35	138	27	32	3.9	5.0
SRP2510A-R68M	0.68	±20	35	120	37	44	3.4	4.3
SRP2510A-1R0M	1.0	±20	35	94	45	54	3.0	3.5
SRP2510A-1R5M	1.5	±20	35	68	76	91	2.5	2.6
SRP2510A-2R2M	2.2	±20	35	57	99	119	2.3	2.4
SRP2510A-4R7M	4.7	±20	35	40	220	262	1.36	1.8

### 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> )	150 °C
- Temperature Max. (T <sub>Smax</sub> )	200 °C
- Time (t <sub>Smin</sub> to t <sub>Smax</sub> )	60-180 seconds
Time Maintained Above	
- Temperature (T <sub>L</sub> )	217 °C
- Time (t <sub>L</sub> )	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 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 \*\*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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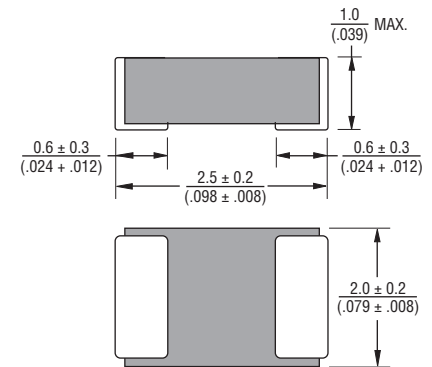
### General Specifications

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

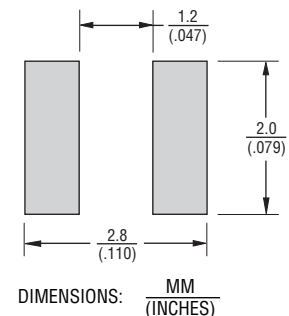
### Materials

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

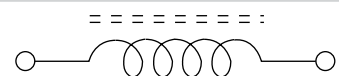
### Product Dimensions



### Recommended Layout



### Electrical Schematic



### How to Order

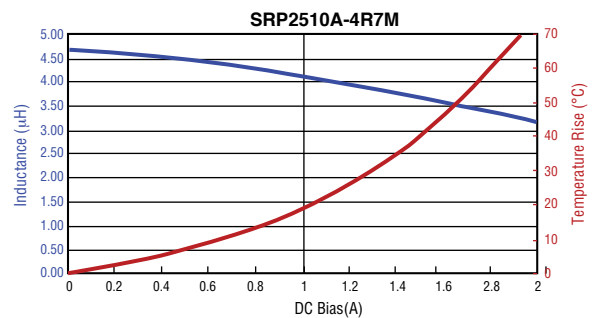
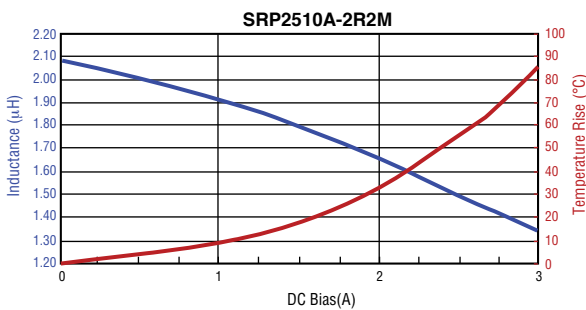
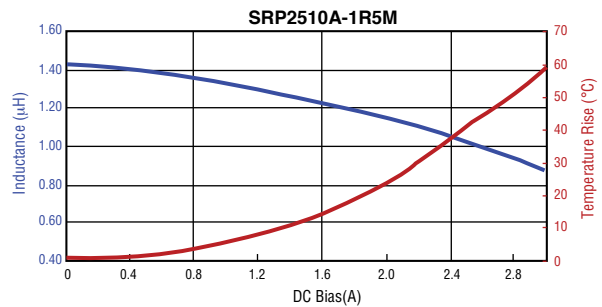
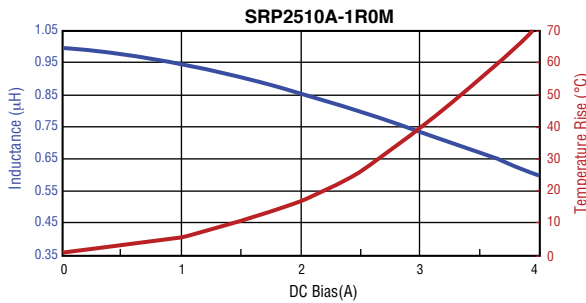
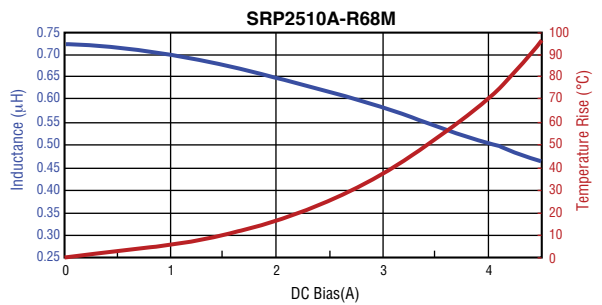
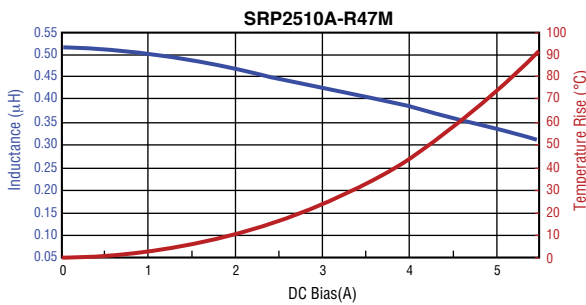
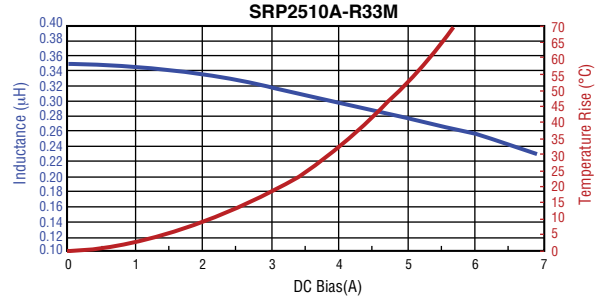
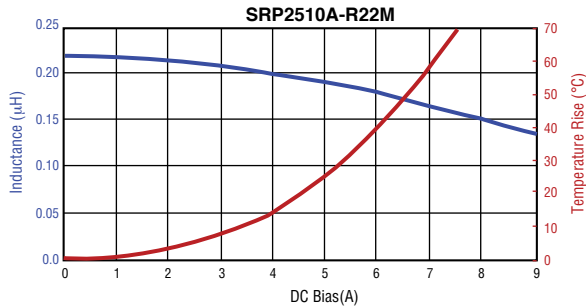
**SRP2510A - R22M**

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

# SRP2510A Series - Shielded Power Inductors



## L vs. I Charts



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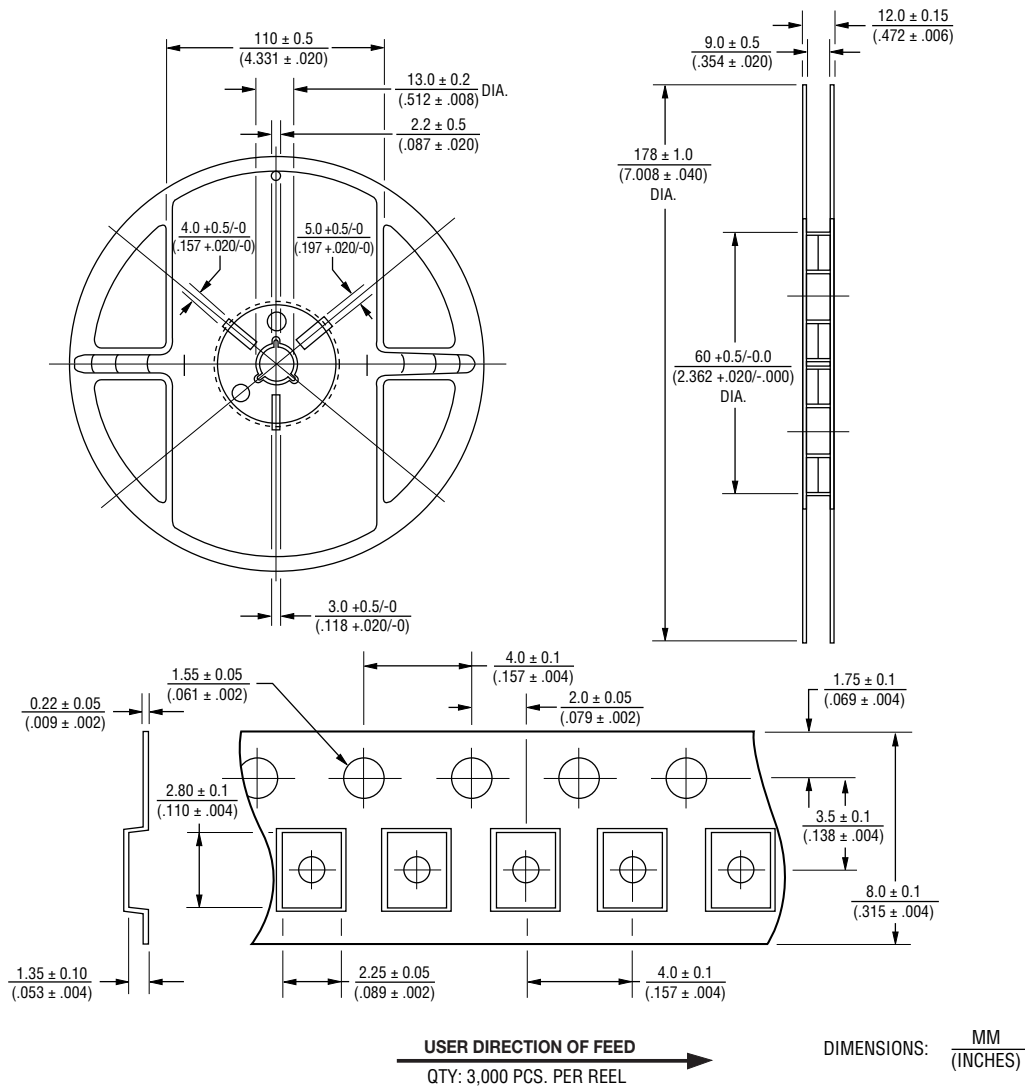
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# SRP2510A Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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REV. 08/17

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