

## Features

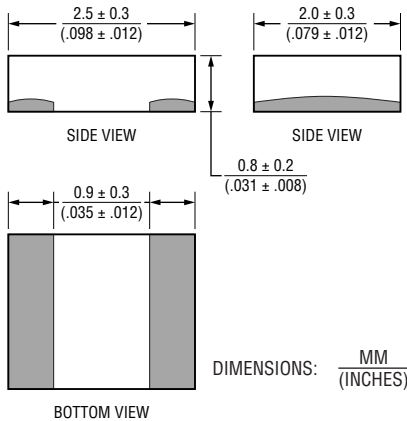
- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP2510TMA Series - Shielded Power Inductors

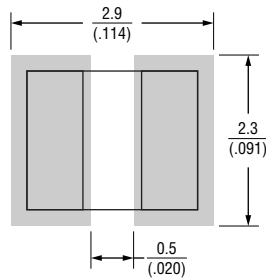
### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 1 V		Q 1 MHz Typ.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (μH)	Tol. %						
SRP2510TMA-R22M	0.22	20	15	150	12	15	7.2	7.7
SRP2510TMA-R33M	0.33	20	15	110	16	19	6.6	7.2
SRP2510TMA-R47M	0.47	20	15	85	20	24	5.8	5.1
SRP2510TMA-R68M	0.68	20	15	70	25	30	5.1	5.2
SRP2510TMA-1R0M	1.00	20	15	55	42	50.4	4.3	4.6
SRP2510TMA-1R5M	1.50	20	15	45	60	72	3.3	3.5
SRP2510TMA-2R2M	2.20	20	15	35	85	102	2.8	3.0

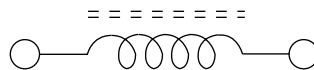
### Product Dimensions



### Recommended Layout



### Electrical Schematic



### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

### General Specifications

**Operating Temperature** ..... -55 °C to +150 °C  
 (Temperature rise included)  
**Storage Temperature (Component)** ..... -55 °C to +150 °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

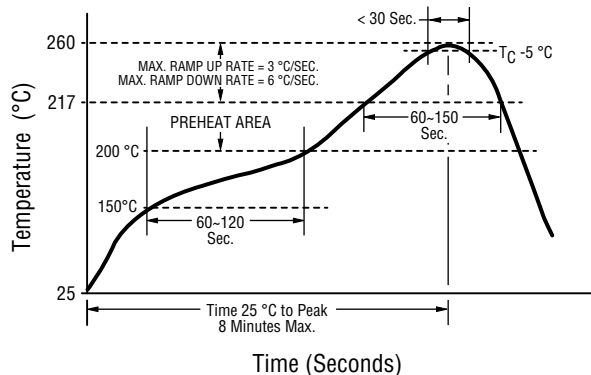
Core ..... Metal alloy powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Ni/Sn  
 Packaging ..... 2000 pcs. per 7-inch reel

### How to Order

**SRP2510TMA - 1R0M**

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

### Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
<b>Preheat</b> - Temperature Min. (T <sub>smin</sub> ) - Temperature Max. (T <sub>smax</sub> ) - Time (t <sub>s</sub> ) from T <sub>smin</sub> to T <sub>smax</sub>	150 °C 200 °C 60-120 seconds
<b>Ramp-up Rate (T<sub>L</sub> to T<sub>p</sub>)</b>	3 °C/second max.
<b>Liquidous temperature (T<sub>L</sub>)</b> Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	217 °C 60-150 seconds
<b>Peak package body temperature (T<sub>p</sub>)</b>	260 °C
<b>Time within 5 °C of Actual Peak Temperature (t<sub>p</sub>)</b>	< 30 seconds
<b>Ramp-Down Rate (T<sub>p</sub> to T<sub>L</sub>)</b>	6 °C/second max.
<b>Time 25 °C to Peak Temperature</b>	8 minutes max.



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

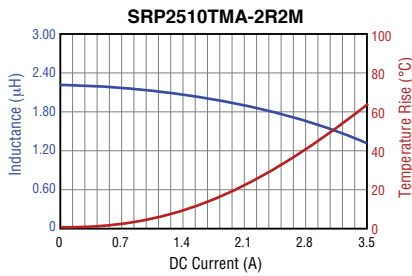
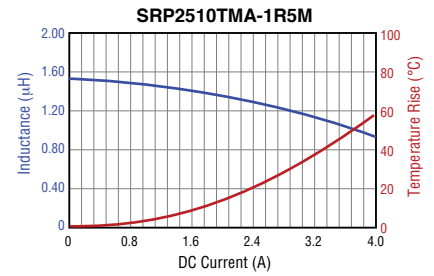
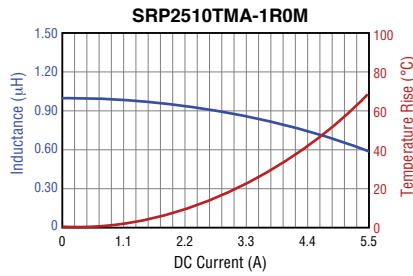
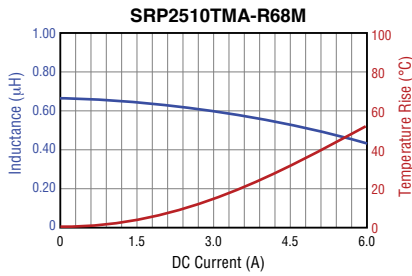
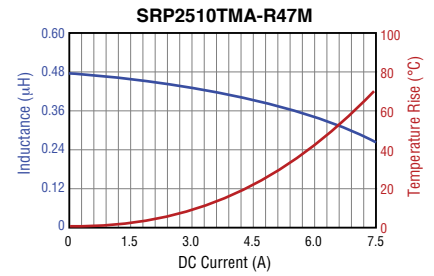
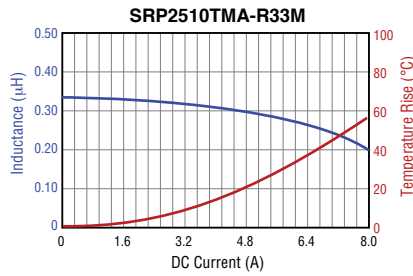
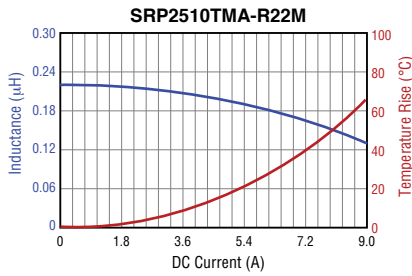
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\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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## L vs. I Charts



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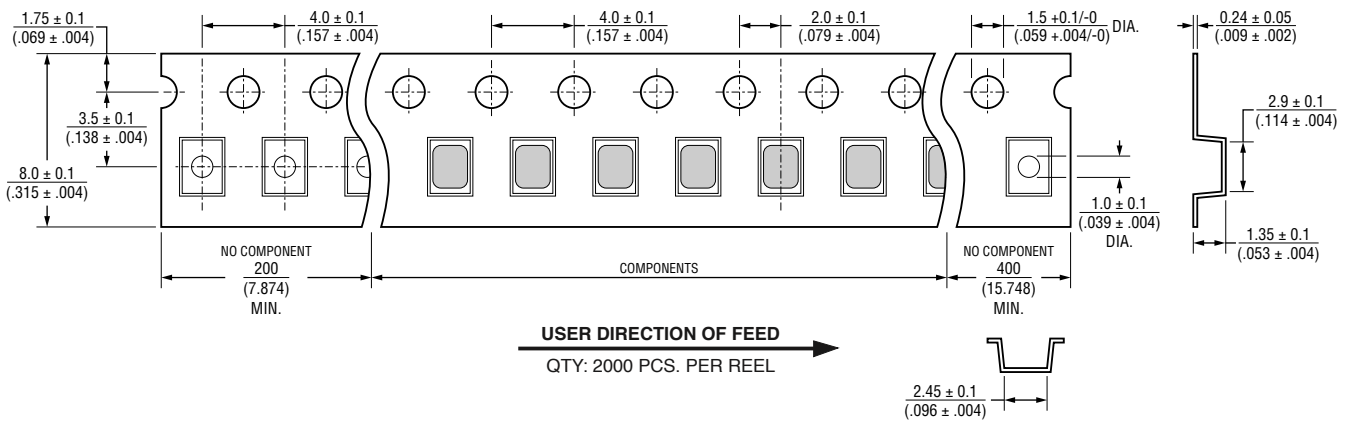
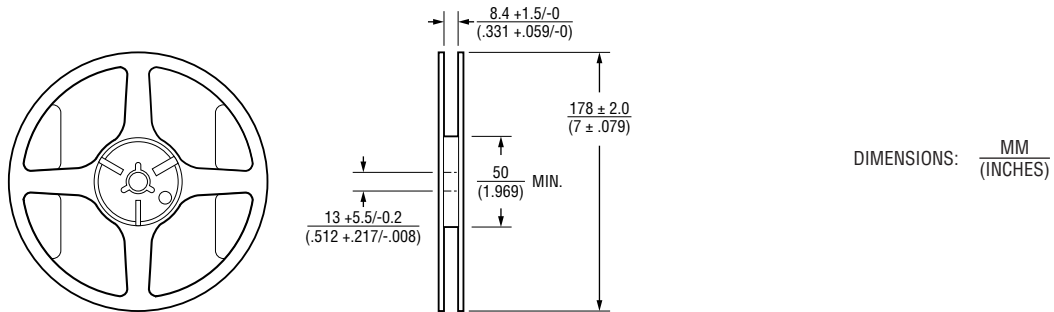
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# SRP2510TMA Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



**BOURNS®**

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

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

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

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