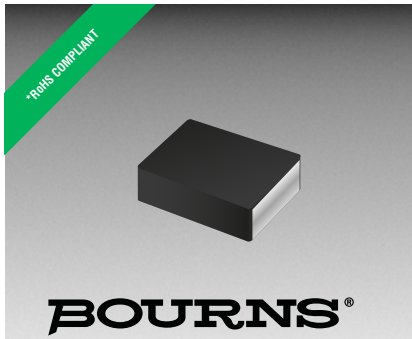




**THE DATASHEET OF  
SRP2010-R33M**





## Features

- Wirewound construction
- Iron powder core
- Magnetically shielded construction provides low radiation
- Low DC resistance
- Low profile
- RoHS compliant\*

## Applications

- DC/DC converters for:
  - Smart phones
  - DVC/DSCs
  - Tablets
  - HDD/SSDs
  - Mobile electronic devices

## SRP2010 Series - SMD Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 MHz / 1 V		DCR (mΩ) Max.	Irms (A)	Isat (A)
	L (μH)	Tol. (%)			
SRP2010-R24M	0.24	20	21	4.5	5.6
SRP2010-R33M	0.33	20	29	3.8	5.0
SRP2010-R47M	0.47	20	40	3.3	4.4
SRP2010-R68M	0.68	20	49	3.1	3.7
SRP2010-1R0M	1.0	20	69	2.6	2.9
SRP2010-1R5M	1.5	20	137	1.9	2.5
SRP2010-2R2M	2.2	20	150	1.7	1.9

### General Specifications

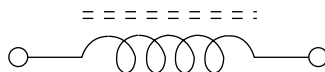
Inductance Test Frequency/  
Voltage ..... 1 MHz/1 V  
Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -50 °C to +125 °C  
Rated Current ..... Inductance drops 30 % at Isat  
Temperature Rise ..... 40 °C at rated Irms  
Resistance to Soldering Heat .... +260 °C

### How to Order

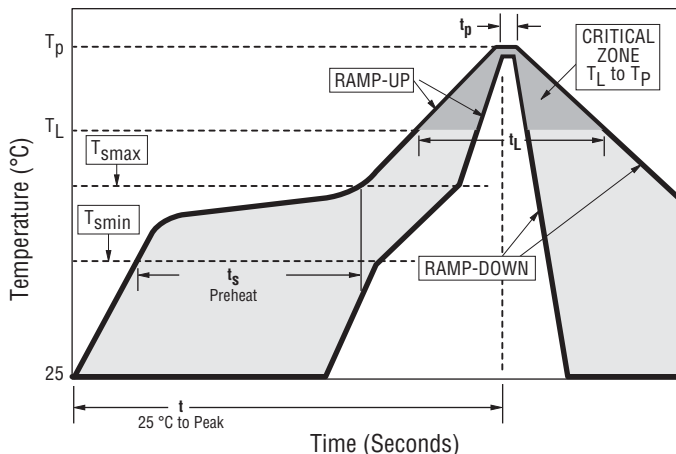
SRP2010 - 1R0M

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

### Electrical Schematic



### Soldering Profile

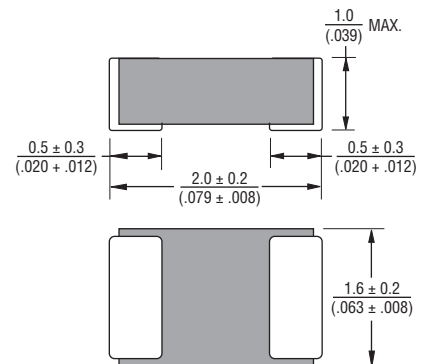


Profile Feature	Pb Free Assembly
Average Ramp Rate (T <sub>Smax</sub> to T <sub>P</sub> )	3 °C/second max.
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (T<sub>Smin</sub>)</li> <li>- Temperature Max. (T<sub>Smax</sub>)</li> <li>- Time (t<sub>Smin</sub> to t<sub>Smax</sub>)</li> </ul>	150 °C 200 °C 60-180 seconds
Time Maintained Above <ul style="list-style-type: none"> <li>- Temperature (T<sub>L</sub>)</li> <li>- Time (t<sub>L</sub>)</li> </ul>	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.

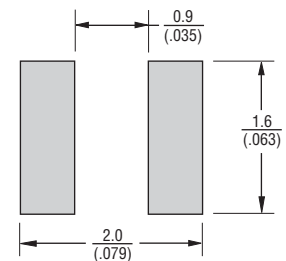
### Materials

Core ..... Iron powder  
Terminal ..... Ni/Sn  
Packaging ..... 3000 pcs. per 7-inch reel

### Product Dimensions



### Recommended Layout



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



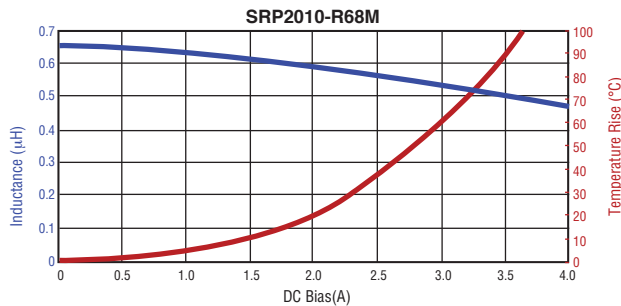
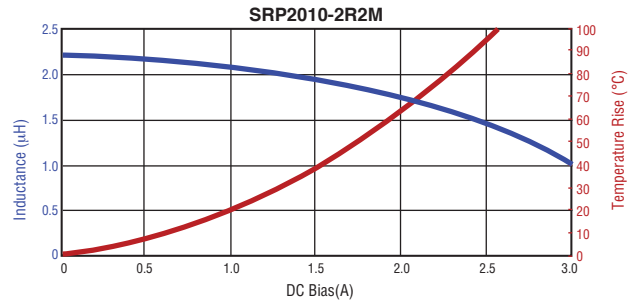
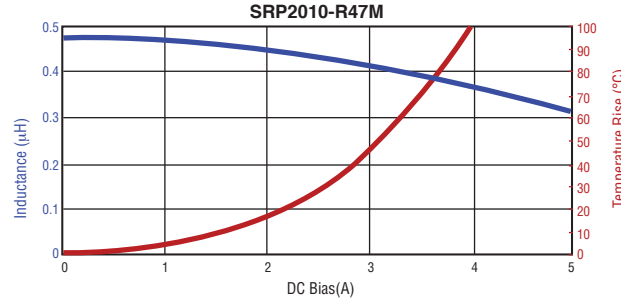
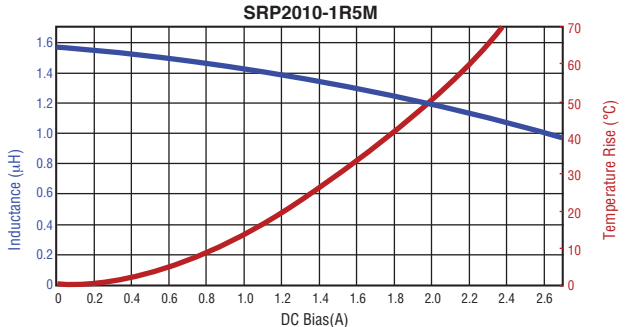
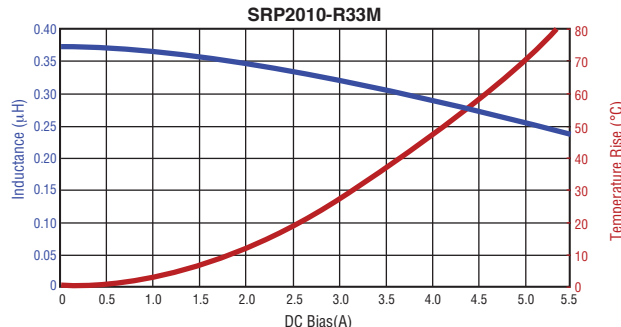
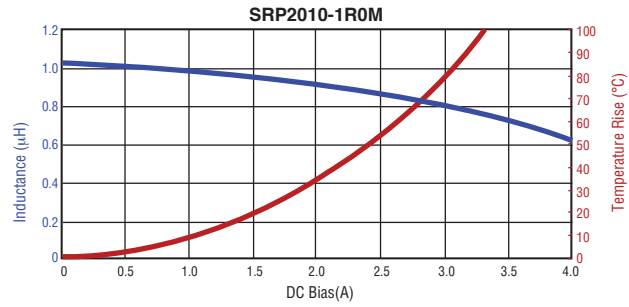
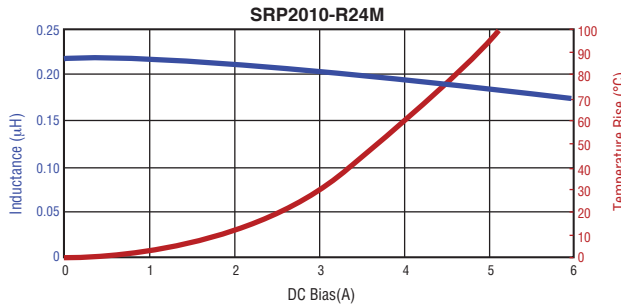
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. 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).

# SRP2010 Series - SMD Power Inductors



## L vs. I Charts

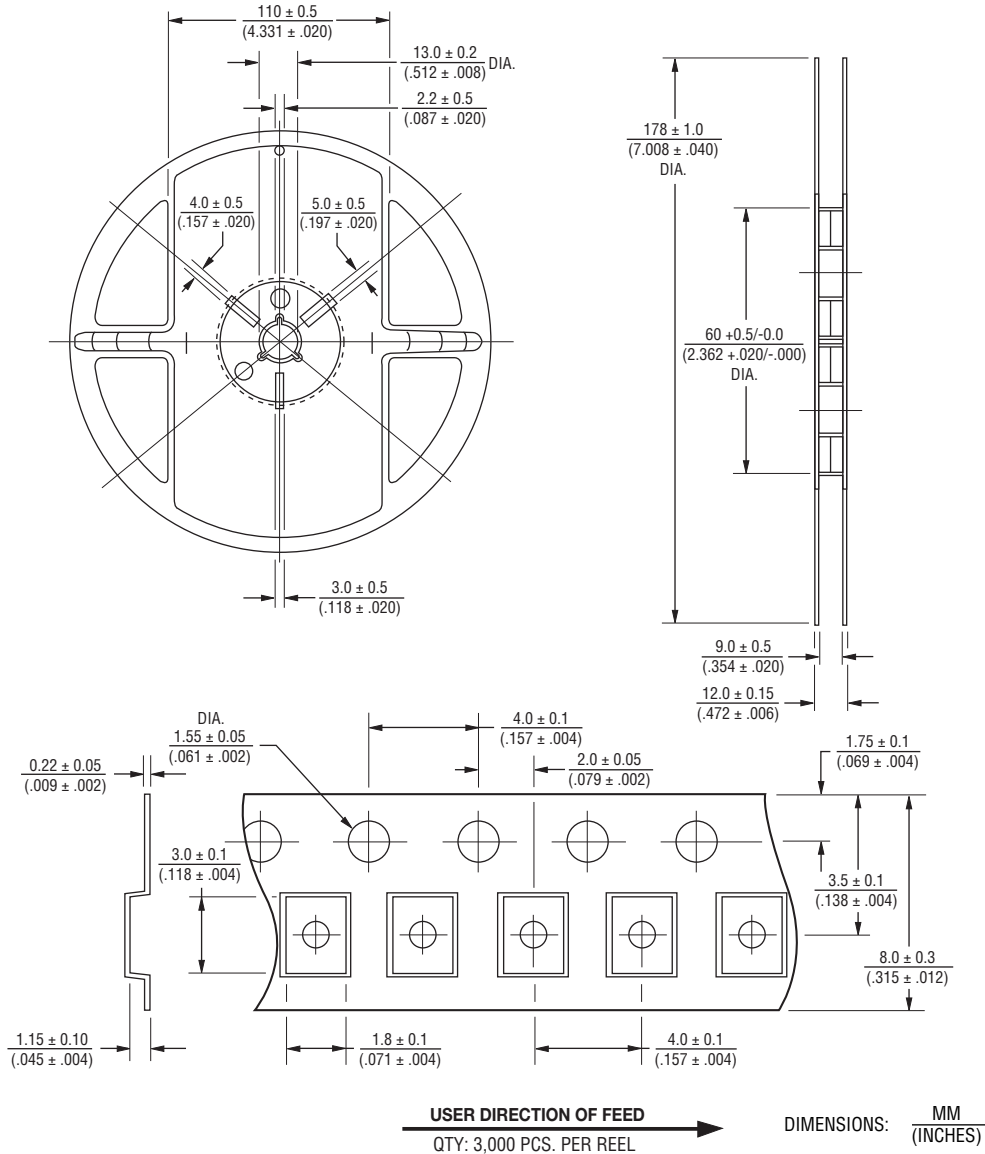


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# SRP2010 Series - SMD Power Inductors

**BOURNS®**

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**BOURNS®**

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**EMEA:** Tel: +36 88 520 390 • Fax: +36 88 520 211

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