

### 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

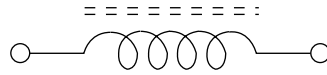
### General Specifications

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

Model \_\_\_\_\_ **SRP2010 - 1R0M**  
Value Code (see table) \_\_\_\_\_

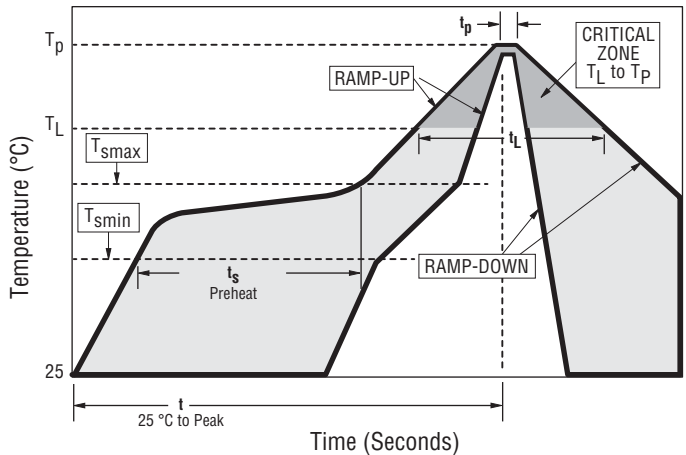
### Electrical Schematic



### Materials

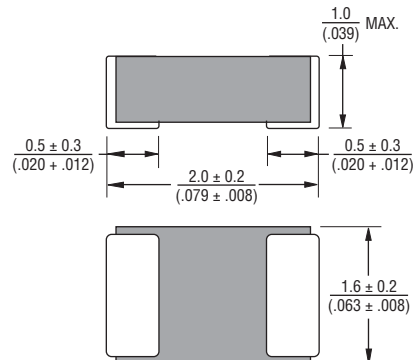
Core ..... Iron powder  
Terminal ..... Ni/Sn  
Packaging ..... 3000 pcs. per 7-inch reel

### Soldering Profile

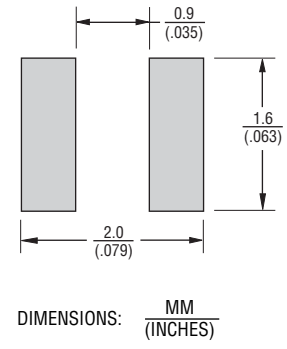



Profile Feature	Pb Free Assembly
Average Ramp Rate (T <sub>Smax</sub> to T <sub>P</sub> )	3 °C/second max.
Preheat	
- Temperature Min. (T <sub>Smin</sub> )	150 °C
- Temperature Max. (T <sub>Smax</sub> )	200 °C
- Time (t <sub>Smin</sub> to t <sub>Smax</sub> )	60-180 seconds
Time Maintained Above	
- Temperature (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.

### Product Dimensions



### Recommended Layout



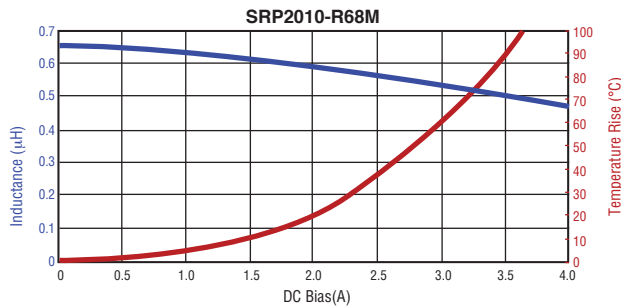
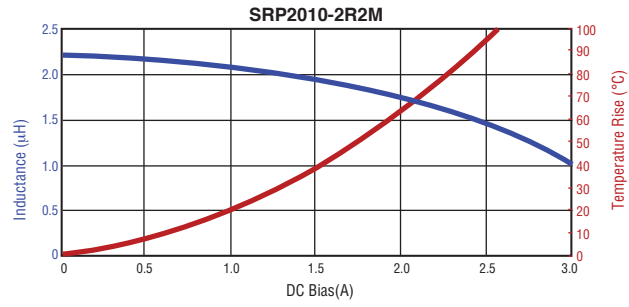
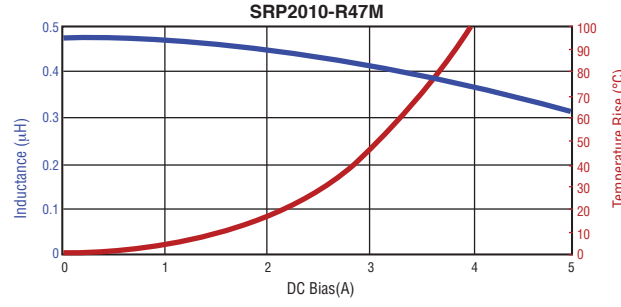
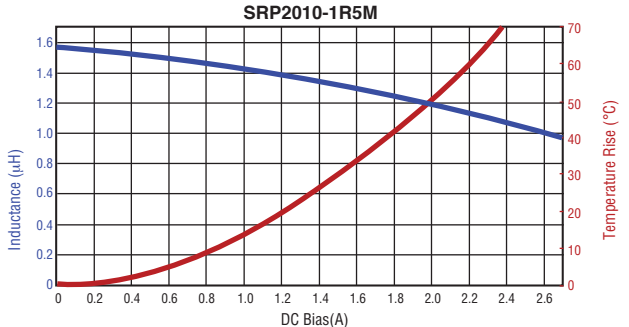
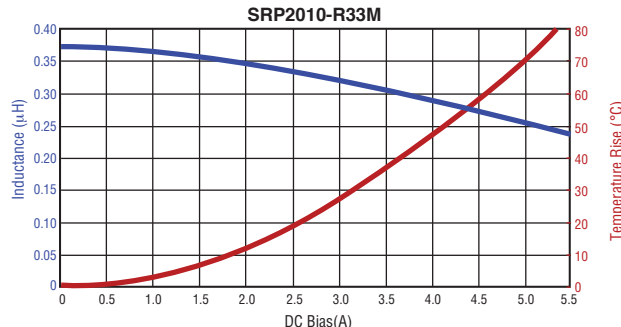
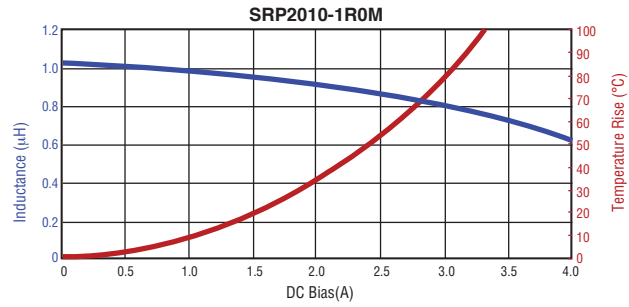
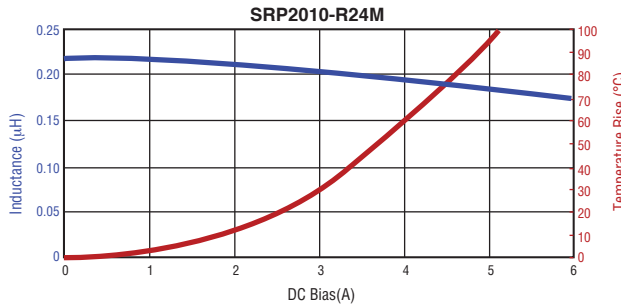
  
**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# SRP2010 Series - SMD Power Inductors



## L vs. I Charts

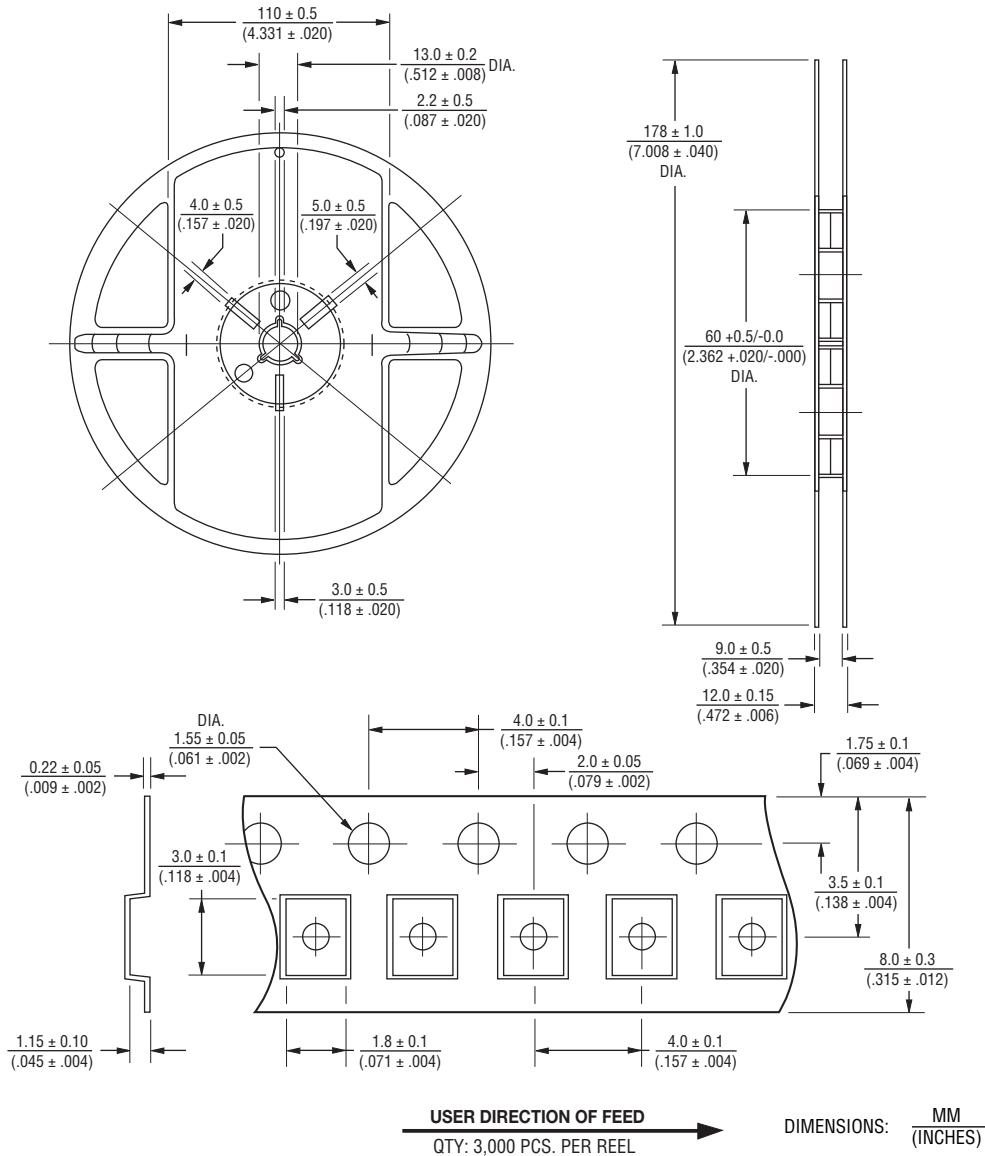


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# SRP2010 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



**BOURNS®**

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

**The Americas:** Tel: +1-951 781-5500 • Fax: +1-951 781-5700

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