



**THE DATASHEET OF  
SRP5020TA-1R5M**





### Features

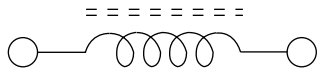
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.33 to 10  $\mu$ H
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## SRP5020TA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q (Min.) @ 100 kHz / 1 V	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP5020TA-R33M	0.33	20	10	117	6.3	7.3	12	21.3	Lead Frame
SRP5020TA-R47M	0.47	20	11	100	7.3	8.6	11.5	18	Lead Frame
SRP5020TA-R68M	0.68	20	12	90	11	12.4	10	12.8	Lead Frame
SRP5020TA-1R0M	1.00	20	13	64	17.5	20	7	13.7	Lead Frame
SRP5020TA-1R2M	1.20	20	14	58	23	28	6.2	11	Lead Frame
SRP5020TA-1R5M	1.50	20	15	52	26.5	30.5	5.5	9.8	Lead Frame
SRP5020TA-2R2M	2.20	20	16	38	42	50	4.2	9	Lead Frame
SRP5020TA-3R3M	3.30	20	17	35	66	76	3.3	7.3	Lead Frame
SRP5020TA-4R7M	4.70	20	18	30	103	116	2.8	5	Lead Frame
SRP5020TA-5R6M	5.60	20	19	25	112	122	2.5	4	Lead Frame
SRP5020TA-6R8M	6.80	20	20	23	130	150	2.4	3.8	Lead Frame
SRP5020TA-8R2M	8.20	20	21	20	148	171	2.3	3.5	Lead Frame
SRP5020TA-100M	10	20	22	18	180	199	2.3	3.4	Lead Frame

### Electrical Schematic

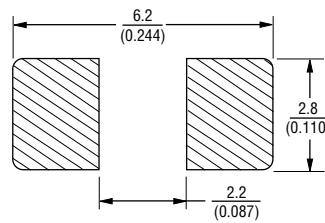


### How to Order

#### SRP5020TA - 100M

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

### Recommended Layout



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

### General Specifications

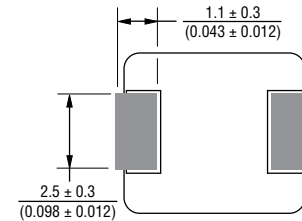
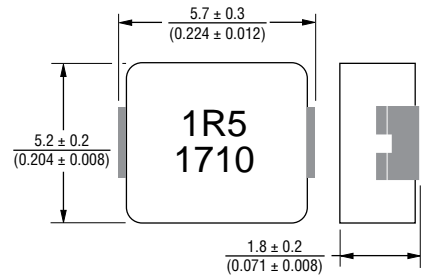
Operating Temperature .....-55 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature (Component) .....-55 °C to +150 °C  
 Rated Current  
 ..... Inductance drops 20 % at I<sub>sat</sub>  
 Temperature Rise ...40 °C at rated I<sub>rms</sub><sup>1</sup>  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

Note 1: 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 ..... Sn  
 Packaging..... 3000 pcs. per 13-inch reel

### Product Dimensions



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



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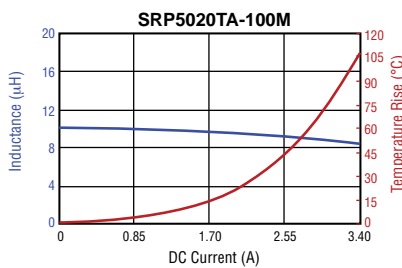
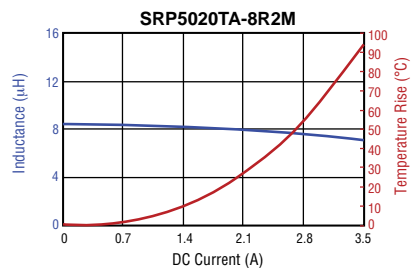
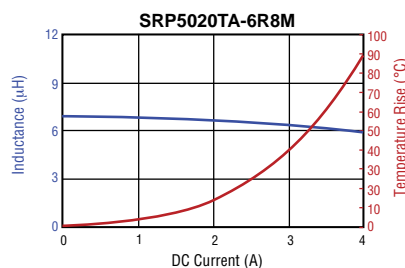
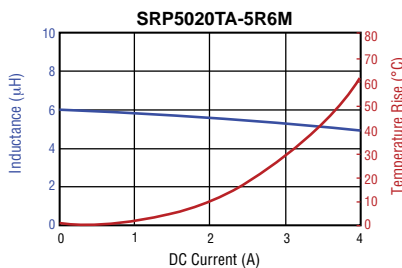
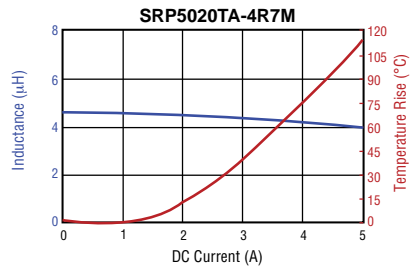
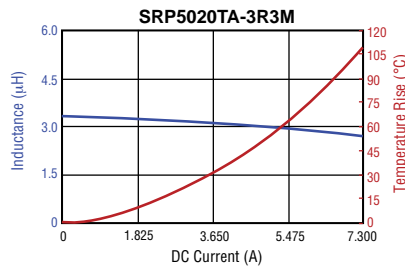
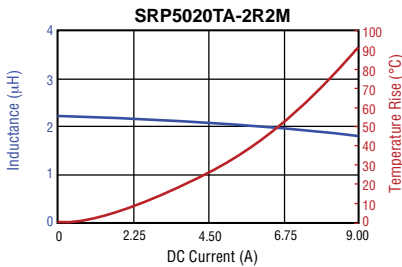
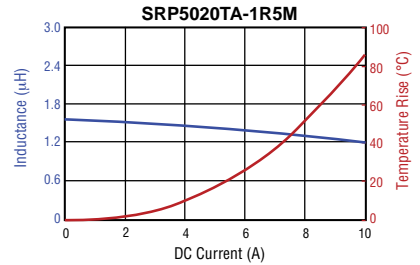
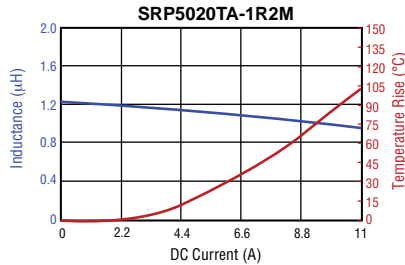
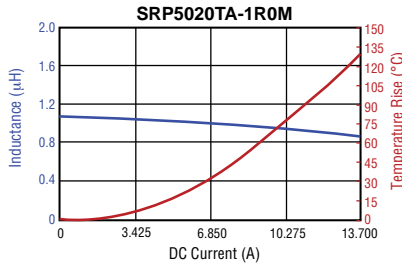
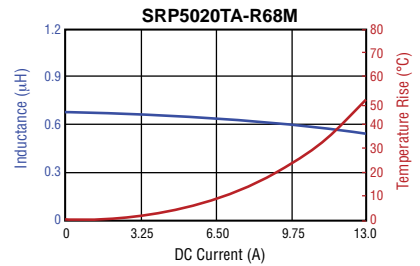
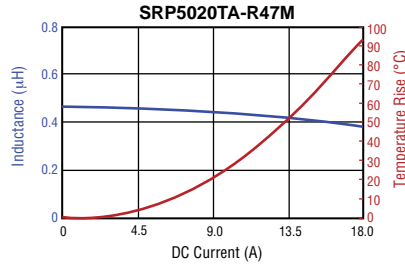
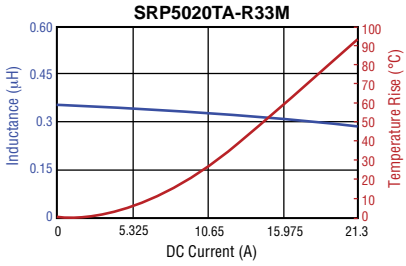
**WARNING Cancer and Reproductive Harm** [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* 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.  
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# SRP5020TA Series - Shielded Power Inductors



## L vs. I Charts



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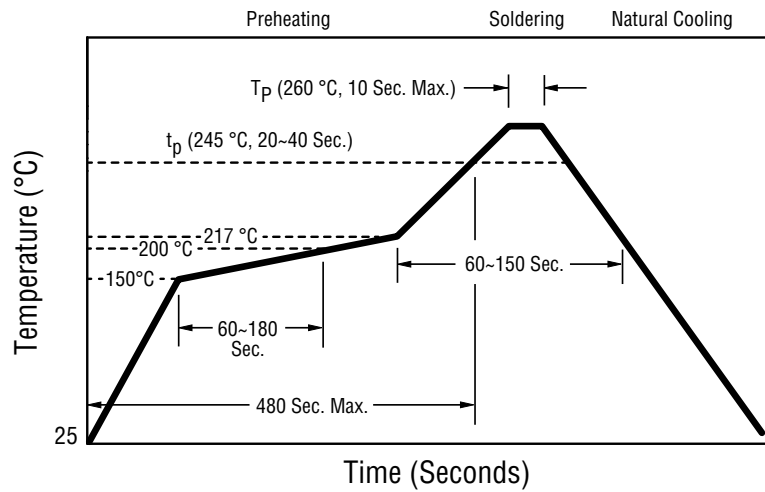
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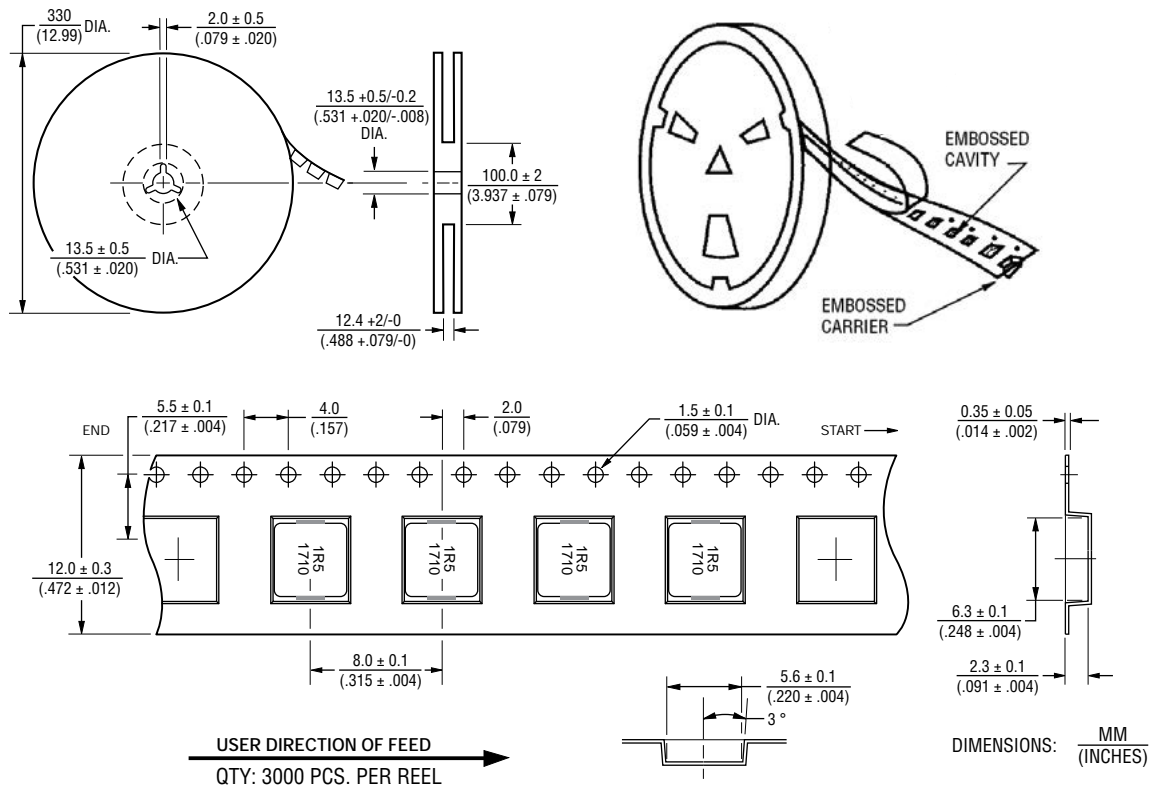
# SRP5020TA Series - Shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 11/19

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