



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.1 to 22  $\mu$ H
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## Applications

- Automotive systems:
  - Driver assistant
  - Information
  - Entertainment
  - Lighting
- DC/DC converters
- Power supplies

# SRP4020TA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

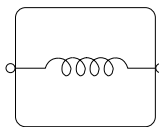
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @ 100 KHz / 1 V	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP4020TA-R10Y	0.10	$\pm$ 30	5	300	3.2	4	12	35	Lead Frame
SRP4020TA-R22Y	0.22	$\pm$ 30	10	270	6.6	7.3	11	24	
SRP4020TA-R33M	0.33	$\pm$ 20	10	130	7.8	8.6	10	18	
SRP4020TA-R47M	0.47	$\pm$ 20	10	120	11.2	14	8.0	12	
SRP4020TA-R56M	0.56	$\pm$ 20	10	105	13.5	16	7.3	10	
SRP4020TA-R68M	0.68	$\pm$ 20	10	100	16	19	7.0	10	
SRP4020TA-1R0M	1.0	$\pm$ 20	10	65	22	27	5.0	8.5	
SRP4020TA-1R2M	1.2	$\pm$ 20	10	64	25	30	4.8	7.8	
SRP4020TA-1R5M	1.5	$\pm$ 20	10	62	34.8	42	4.5	7.0	
SRP4020TA-2R2M	2.2	$\pm$ 20	10	45	51	61	4.0	6.0	
SRP4020TA-3R3M	3.3	$\pm$ 20	10	40	69	76	3.5	4.0	
SRP4020TA-4R7M	4.7	$\pm$ 20	10	27	95	105	2.6	3.5	
SRP4020TA-5R6M	5.6	$\pm$ 20	10	25	112	125	2.2	3.0	
SRP4020TA-6R8M	6.8	$\pm$ 20	10	24	150	172	2.1	2.8	
SRP4020TA-8R2M	8.2	$\pm$ 20	10	21	158	180	2.0	2.5	
SRP4020TA-100M	10.0	$\pm$ 20	10	19	215	243	1.8	2.3	
SRP4020TA-150M	15.0	$\pm$ 20	10	17	325	374	1.5	1.9	
SRP4020TA-220M	22.0	$\pm$ 20	10	12	470	500	1.2	1.4	

### How to Order

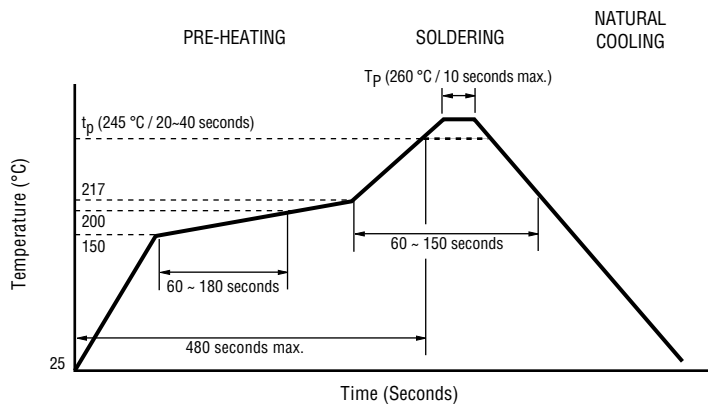
SRP4020TA - 100M

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

### Electrical Schematic



### Soldering Profile



### General Specifications

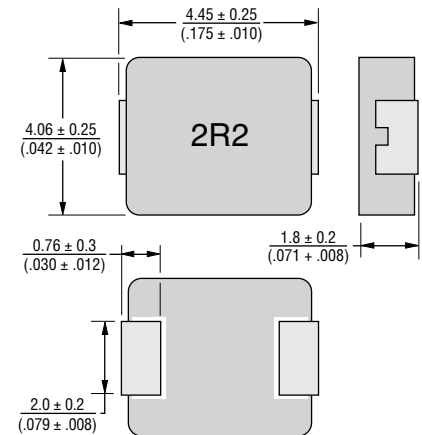
Test Voltage ..... 1.0 V  
 Test Frequency ..... 100 KHz  
 Operating Temperature ..... -40 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +125 °C  
 Rated Current ..... Inductance drops 20 % at I<sub>sat</sub>  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Resistance to Soldering Heat ..... +260 °C, 40 sec. max.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... 3B

### Materials

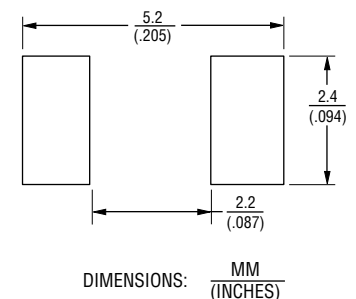
Core ..... Carbonyl powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 3000 pcs. per 13-inch reel

### Product Dimensions

#### Lead Frame Terminal



### Recommended Layout



\* 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.

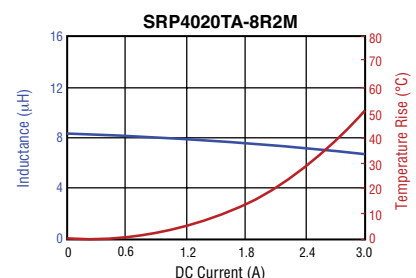
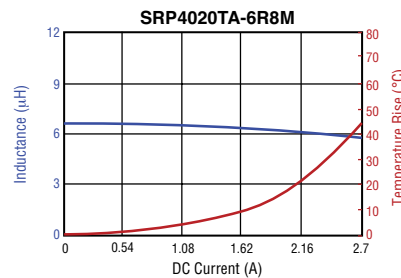
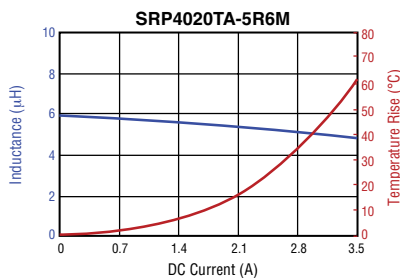
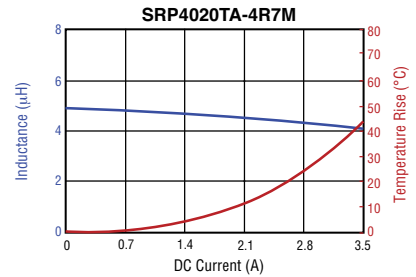
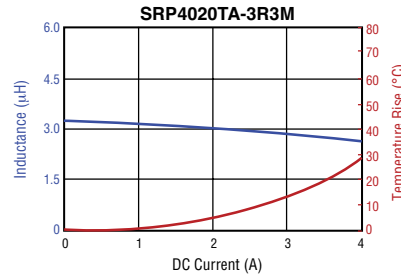
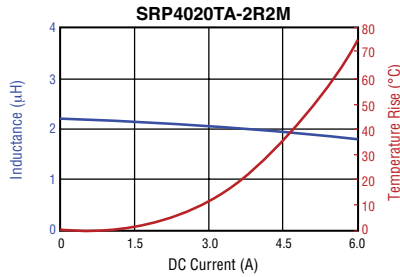
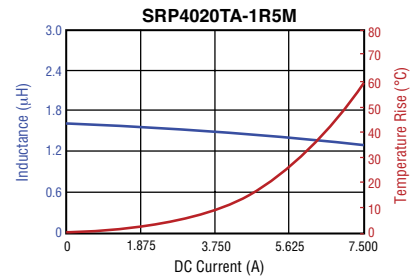
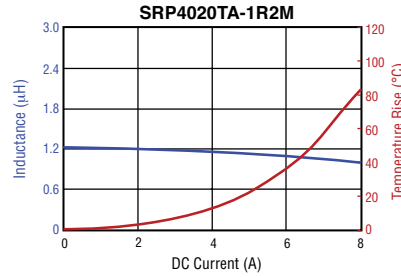
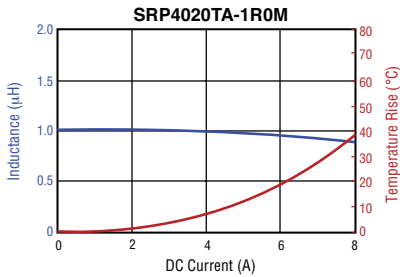
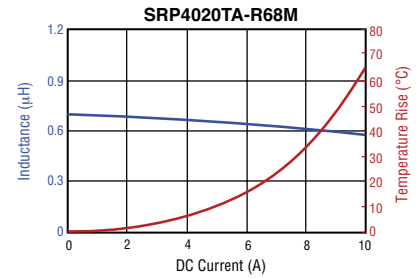
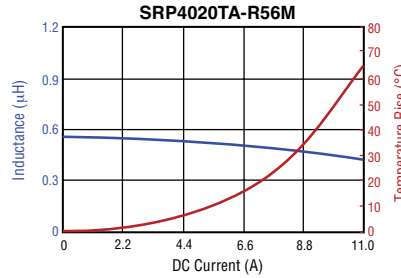
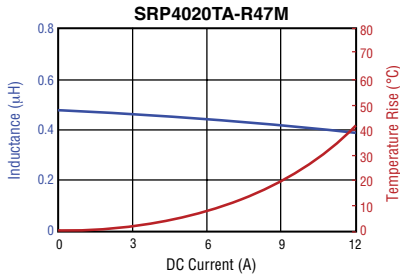
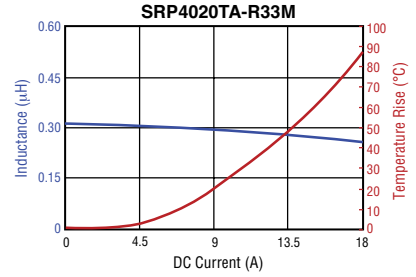
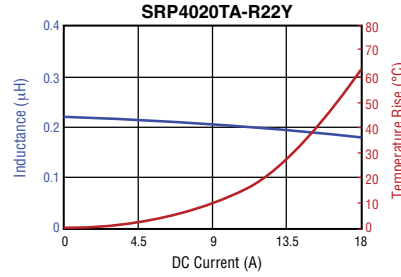
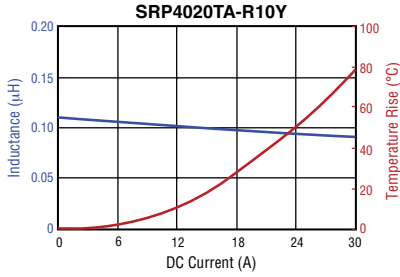
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# SRP4020TA Series - Shielded Power Inductors



## L vs. I Charts

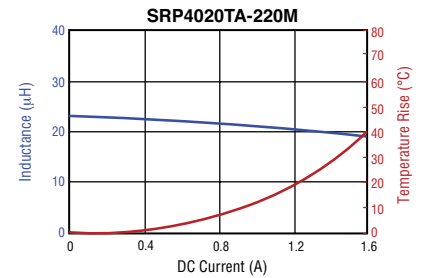
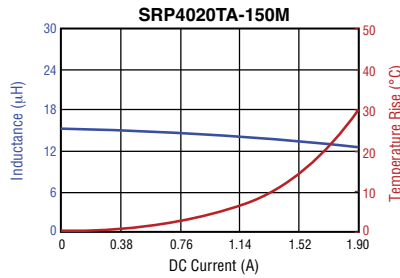
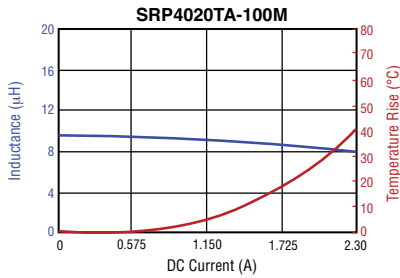


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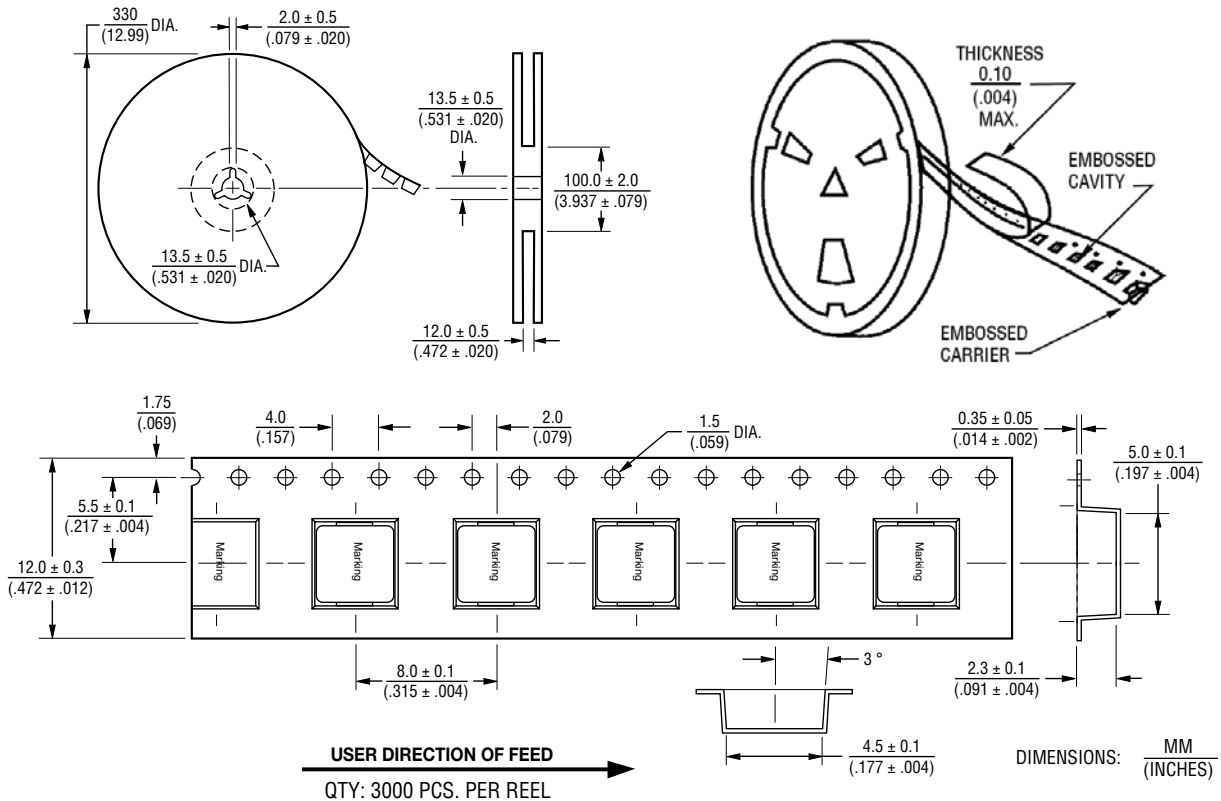
# SRP4020TA Series - Shielded Power Inductors



## L vs. I Charts



## Packaging Specifications



REV. 06/17

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