



**THE DATASHEET OF  
SRP4020TA-R56M**





### Features

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

## SRP4020TA Series - Shielded Power Inductors

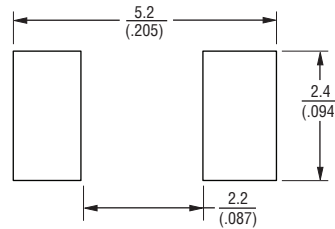
### Electrical Specifications @ 25 °C

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	

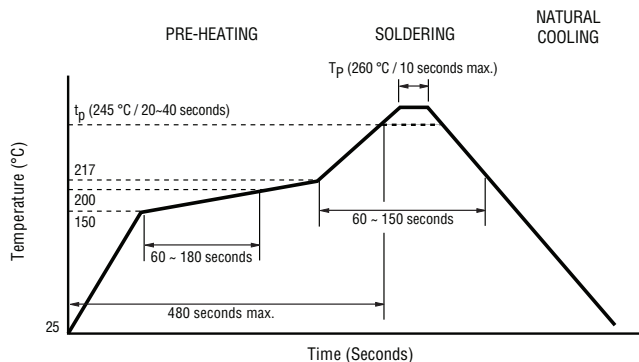
### How to Order

Model **SRP4020TA - 100M**  
 Value Code (see table)

### Recommended Layout



### Soldering Profile



REFLOW TIMES: 3 MAX.

### General Specifications

Test Voltage ..... 1.0 V  
 Test Frequency ..... 100 KHz  
 Operating Temperature ..... -55 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature ..... -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>  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

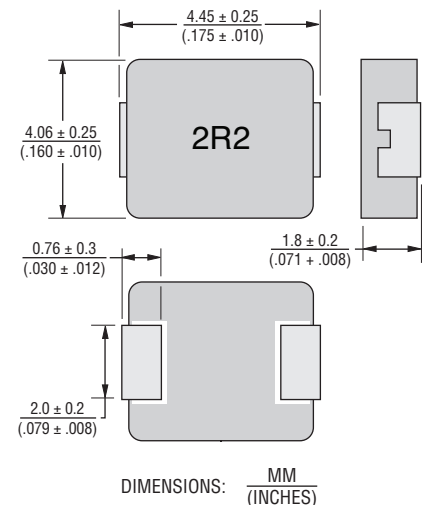
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

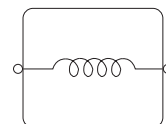
Core ..... Carbonyl powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 3000 pcs. per 13-inch reel

### Product Dimensions

#### Lead Frame Terminal



### Electrical Schematic



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

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

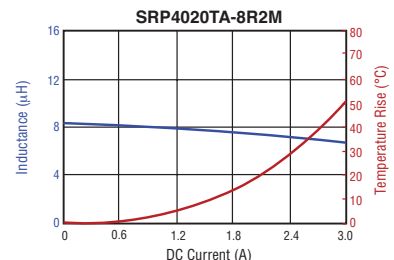
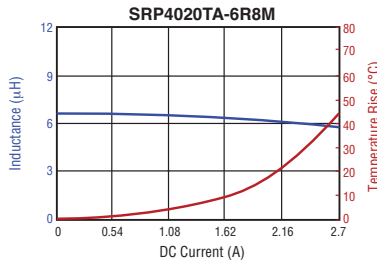
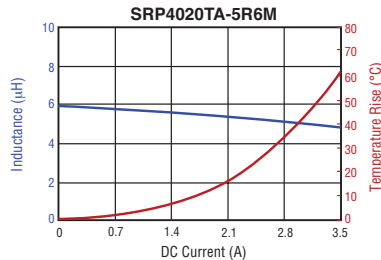
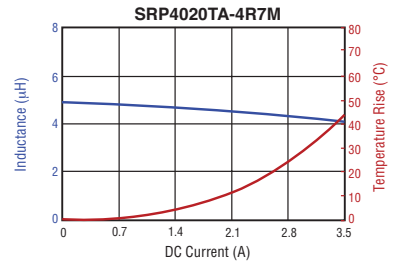
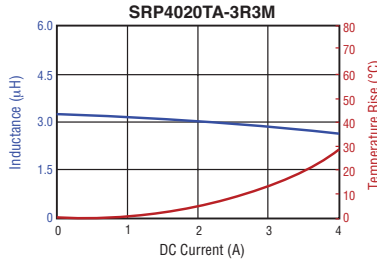
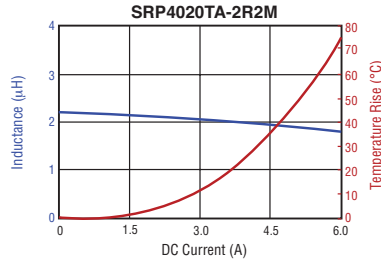
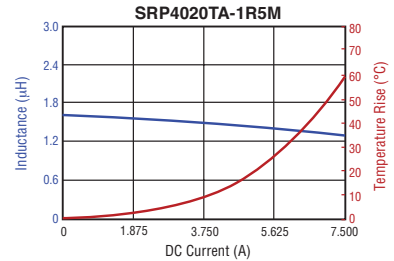
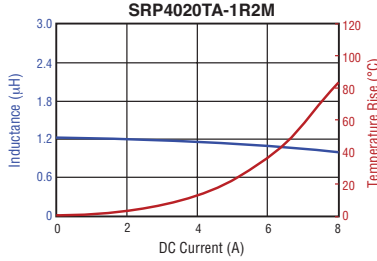
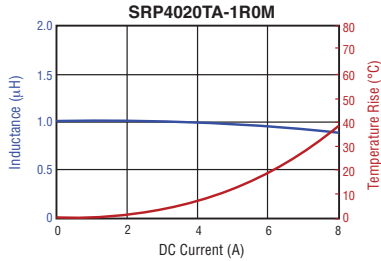
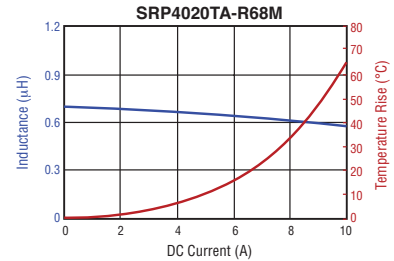
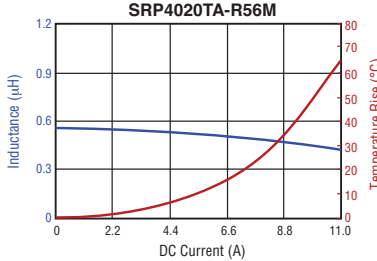
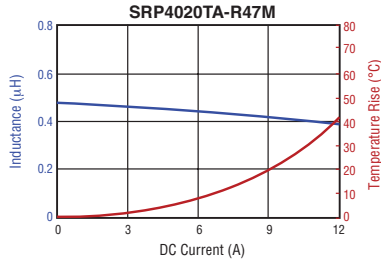
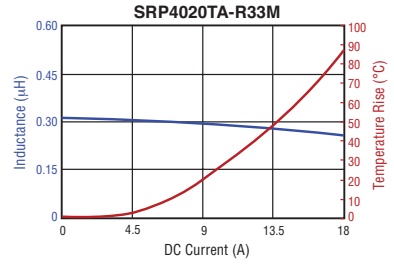
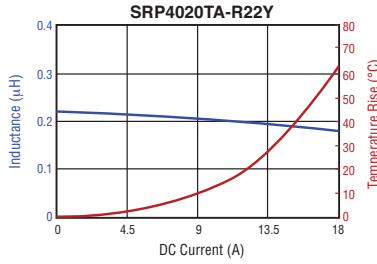
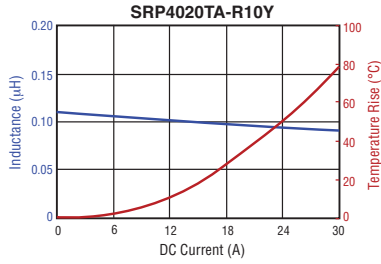
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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## L vs. I Charts

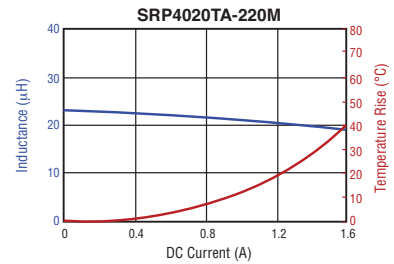
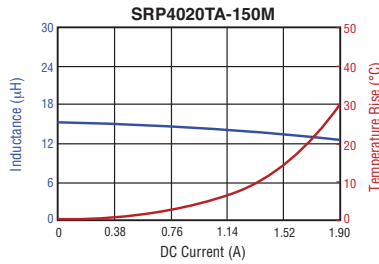
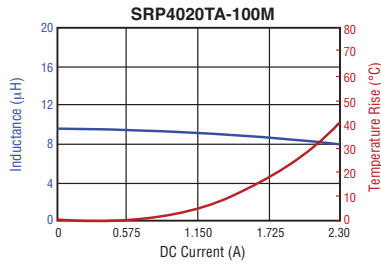


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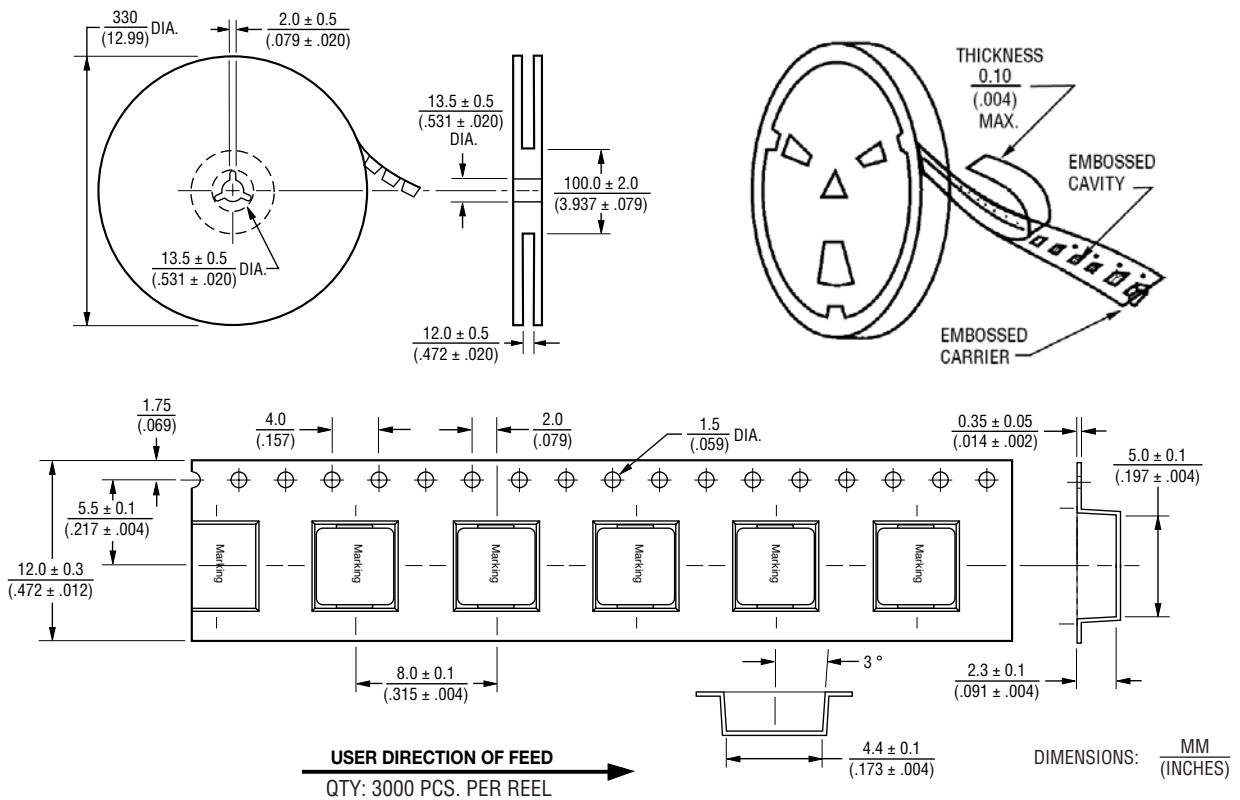
# SRP4020TA Series - Shielded Power Inductors



## L vs. I Charts



## Packaging Specifications



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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REV. 07/20

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