



**THE DATASHEET OF  
SRP3020TA-R33M**





### Features

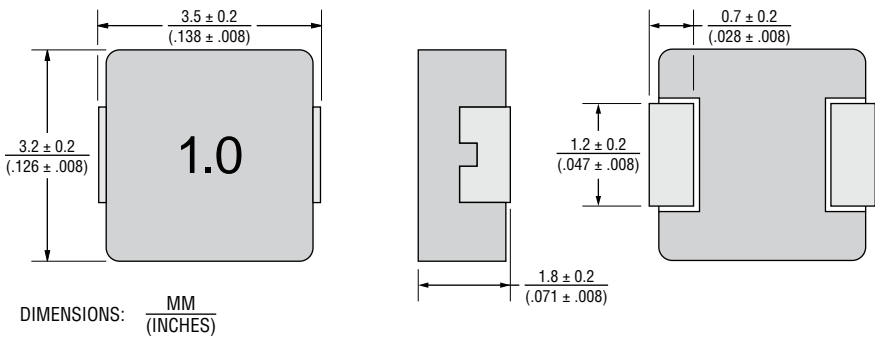
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.1 to 10  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP3020TA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Min.	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I rms (A) Typ.	I sat (A) Typ.
	L ( $\mu$ H)	Tol. %						
SRP3020TA-R10Y	0.10	$\pm 30\%$	5	340	6.6	9	10.5	14.0
SRP3020TA-R22Y	0.22	$\pm 30\%$	5	185	11	14	9.0	11.2
SRP3020TA-R33M	0.33	$\pm 20\%$	5	160	17	21	8.0	10.0
SRP3020TA-R47M	0.47	$\pm 20\%$	5	105	19.7	23	7.0	9.0
SRP3020TA-R68M	0.68	$\pm 20\%$	5	94	25.5	29	5.5	7.0
SRP3020TA-1R0M	1.0	$\pm 20\%$	10	82	32	38	4.0	5.0
SRP3020TA-1R5M	1.5	$\pm 20\%$	10	54	42	50	3.8	4.0
SRP3020TA-2R2M	2.2	$\pm 20\%$	10	45	65	75	3.5	3.7
SRP3020TA-3R3M	3.3	$\pm 20\%$	10	40	125	145	3.0	3.5
SRP3020TA-4R7M	4.7	$\pm 20\%$	10	34	172	200	2.6	3.0
SRP3020TA-5R6M	5.6	$\pm 20\%$	10	29	205	238	2.2	2.6
SRP3020TA-6R8M	6.8	$\pm 20\%$	10	24	260	300	1.9	2.2
SRP3020TA-8R2M	8.2	$\pm 20\%$	10	22	340	390	1.6	1.9
SRP3020TA-100M	10	$\pm 20\%$	10	20	366	422	1.4	1.6

### Product Dimensions



### General Specifications

Operating Temperature .....-55 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature (Component) .....-55 °C to +150 °C  
 Rated Current ..... Inductance drops 30 % at Isat  
 Temperature Rise ... 40 °C at rated Irms<sup>1</sup>  
 MSL ..... 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.

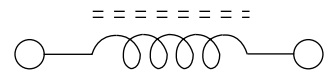
### Materials

Core.....Metal alloy powder  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn/Ni  
 Packaging..... 3000 pcs. per 13-inch reel

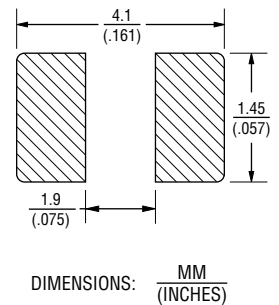
### How to Order

**SRP3020TA - 1R0M**  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

### Schematic



### Recommended Layout



\* 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.  
 Specifications are subject to change without notice.  
 Users should verify actual device performance in their specific applications.  
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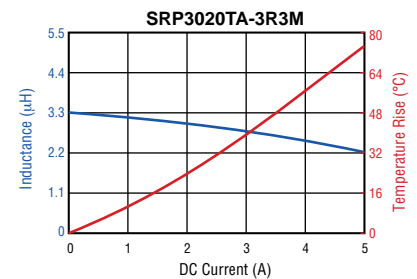
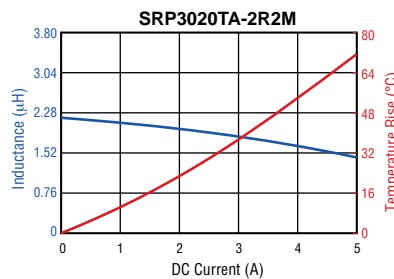
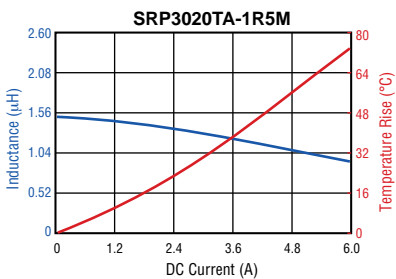
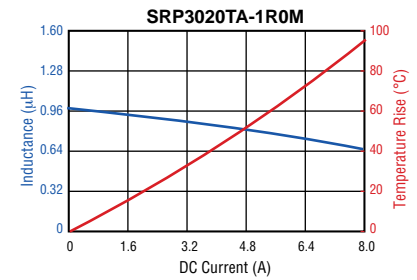
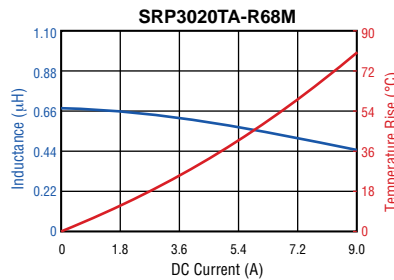
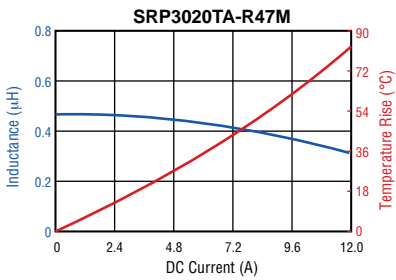
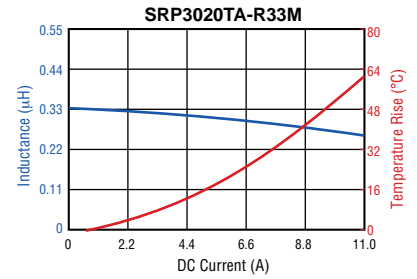
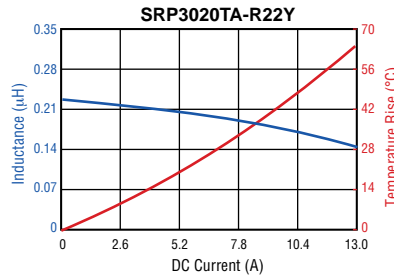
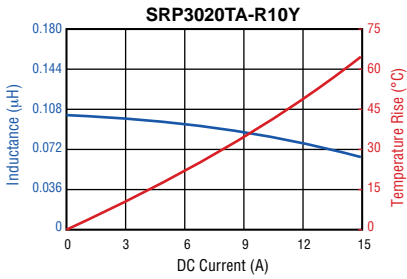


## Soldering Profile



REFLOW TIMES: 3 MAX.

## L vs. I Charts



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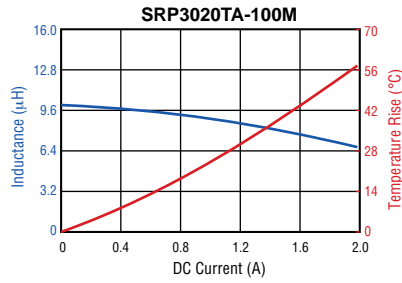
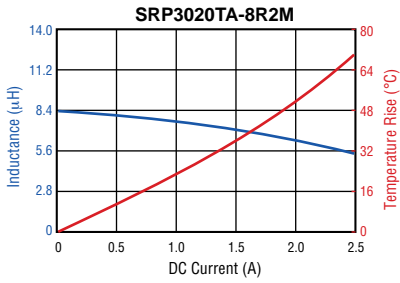
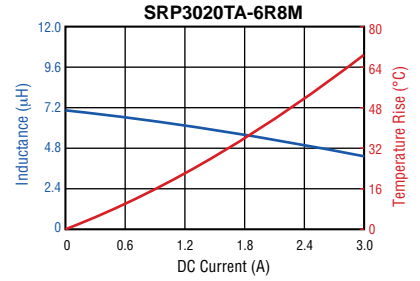
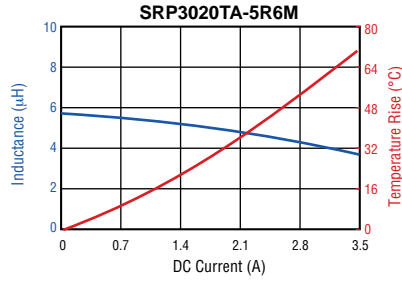
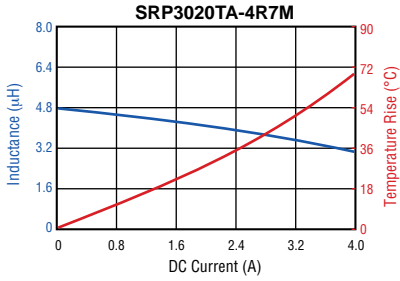
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## L vs. I Charts (Continued)



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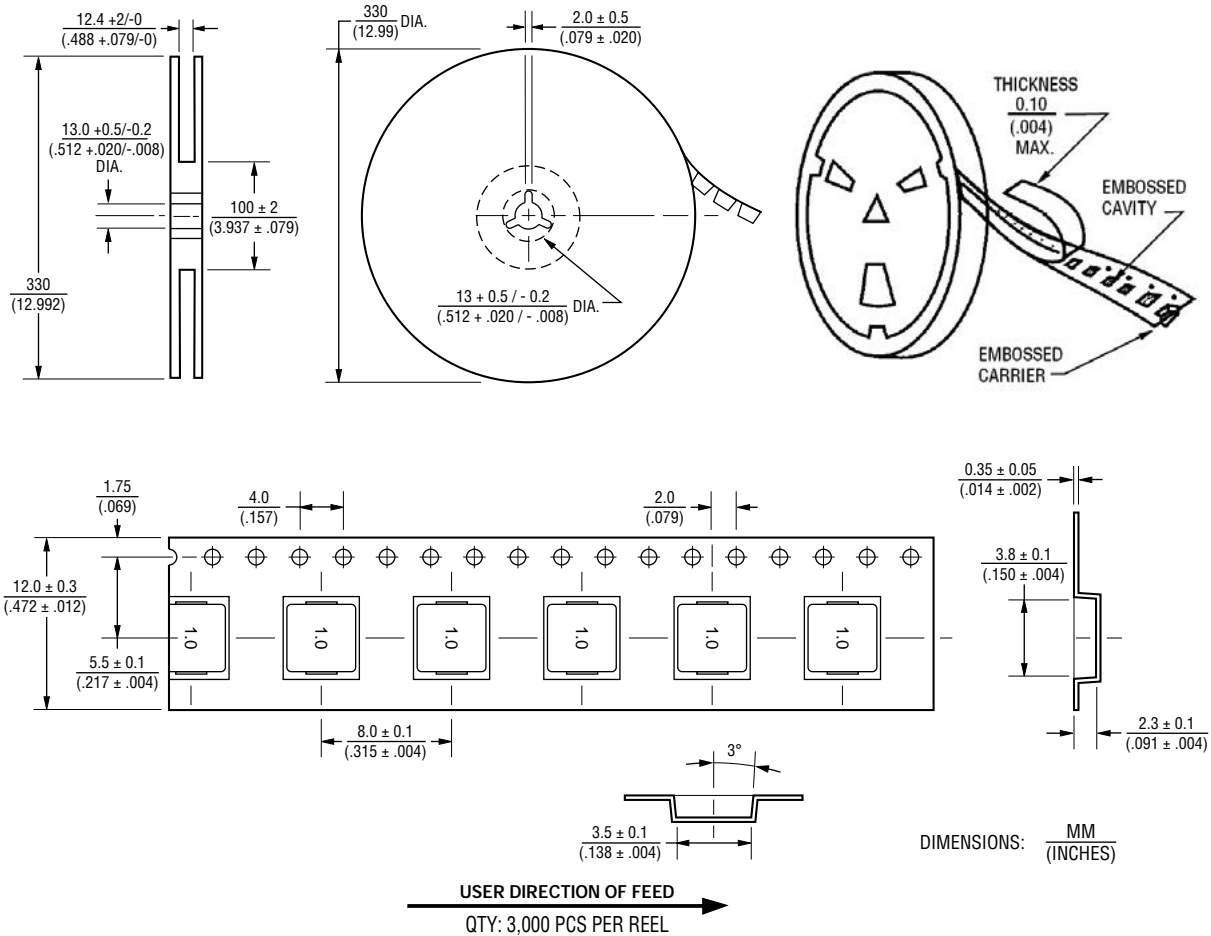
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# SRP3020TA Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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REV. 11/19

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