



**THE DATASHEET OF  
SRP3020C-R47M**





### Features

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



This series is currently available but not recommended for new designs.

## SRP3020C Series – Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q Min. @ 100 kHz	SRF (MHz) Typ.	DCR (m $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I rms (A) Typ.	I sat (A) Typ.	Marking
	L ( $\mu$ H)	Tol. %							
SRP3020C-R10Y	0.10	$\pm 30\%$	10	208	6.5	7	10	11.5	.10H
SRP3020C-R22Y	0.22	$\pm 30\%$	10	140	11.5	14	8.5	9.2	.22H
SRP3020C-R36M	0.36	$\pm 20\%$	10	105	17	21	7	8	.36H
SRP3020C-R47M	0.47	$\pm 20\%$	10	83	19.7	23	6	7	.47H
SRP3020C-R68M	0.68	$\pm 20\%$	10	72	24	29	5.5	6	.68H
SRP3020C-1R0M	1.0	$\pm 20\%$	10	66	30	36	5	5.5	1.0H
SRP3020C-1R5M	1.5	$\pm 20\%$	10	50	44	50	3.7	4	1.5H
SRP3020C-2R2M	2.2	$\pm 20\%$	10	47	65	75	3.5	3.7	2.2H
SRP3020C-3R3M	3.3	$\pm 20\%$	10	44	125	145	2.6	2.8	3.3H
SRP3020C-4R7M	4.7	$\pm 20\%$	10	29	167	200	1.8	2	4.7H
SRP3020C-5R6M	5.6	$\pm 20\%$	10	28	205	238	1.7	1.9	5.6H
SRP3020C-6R8M	6.8	$\pm 20\%$	10	27	260	300	1.6	1.8	6.8H
SRP3020C-8R2M	8.2	$\pm 20\%$	10	27	340	390	1.4	1.4	8.2H
SRP3020C-100M	10	$\pm 20\%$	10	26	360	422	1.3	1.3	10H

### General Specifications

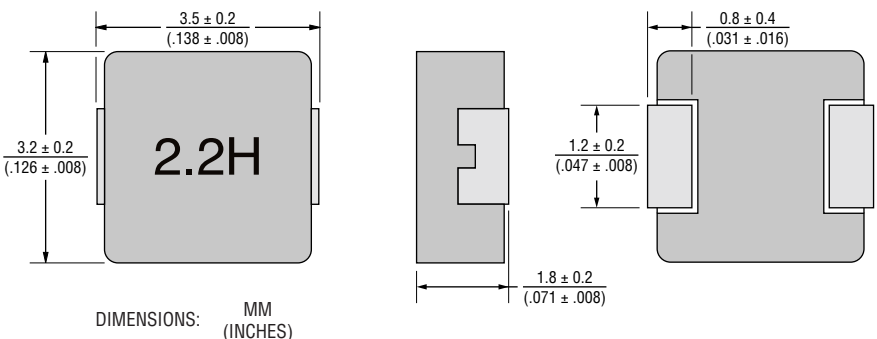
Operating Temperature  
 .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component)  
 .....-40 °C to +125 °C  
 Rated Current  
 ..... Inductance drops 30 % at Isat  
 Temperature Rise ... 40 °C at rated Irms!  
 MSL ..... 1  
 ESD Classification (HBM)..... N/A

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

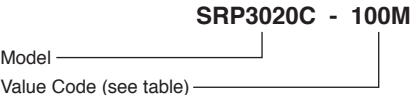
### Materials

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

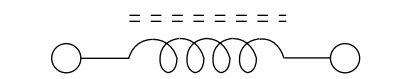
### Product Dimensions



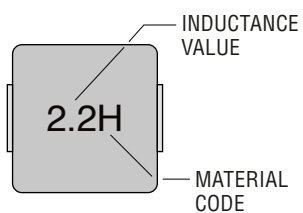
### How to Order



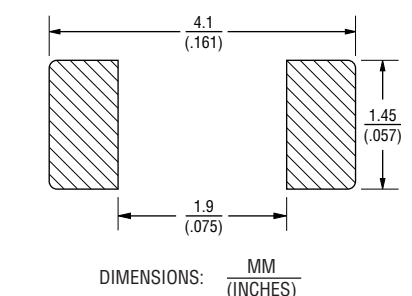
### Schematic



### Typical Part Marking



### Recommended Layout

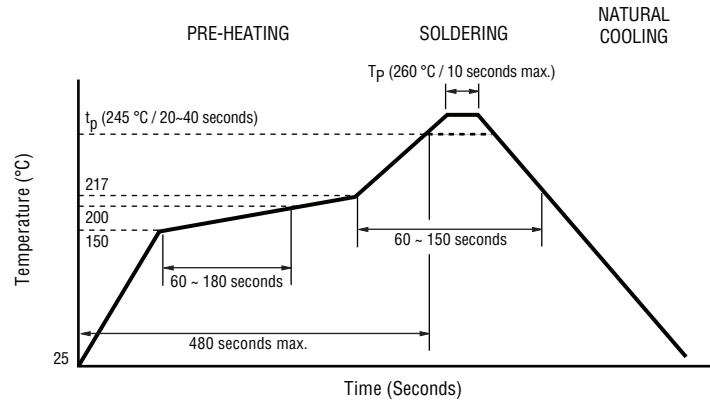


\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.  
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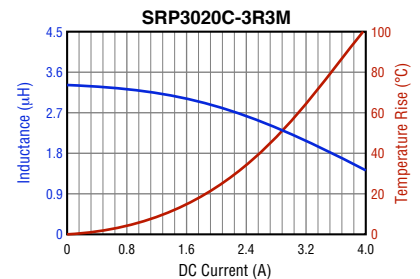
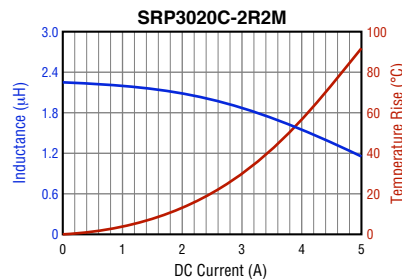
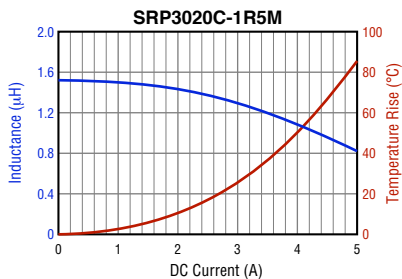
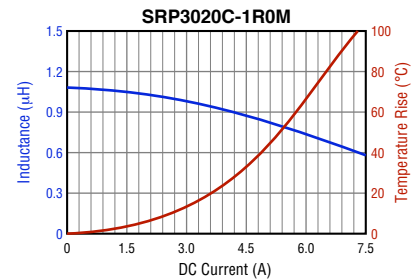
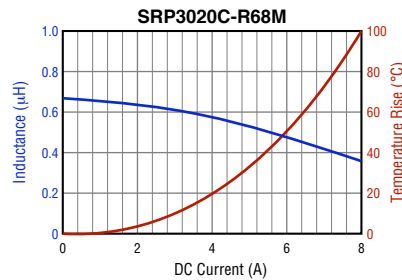
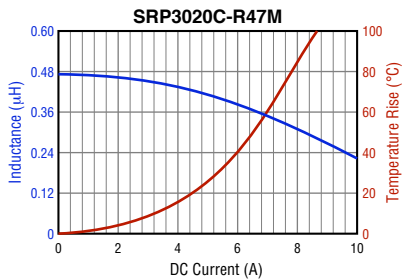
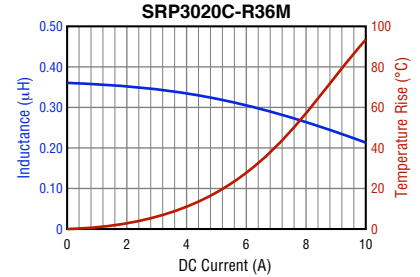
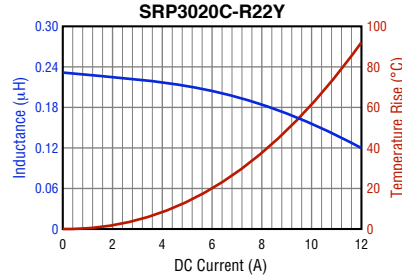
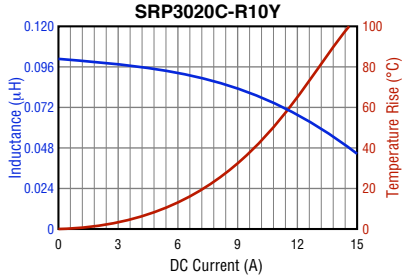
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## Soldering Profile



REFLOW TIMES: 3 MAX.

## L vs. I Charts



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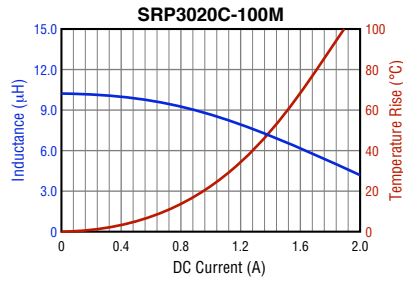
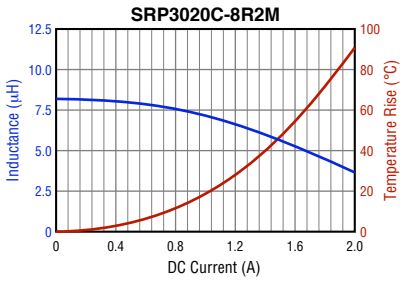
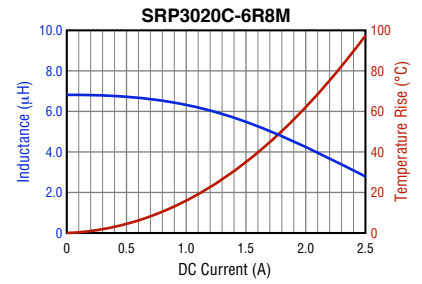
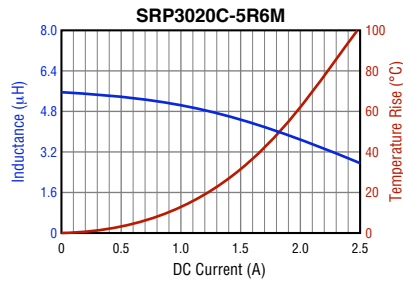
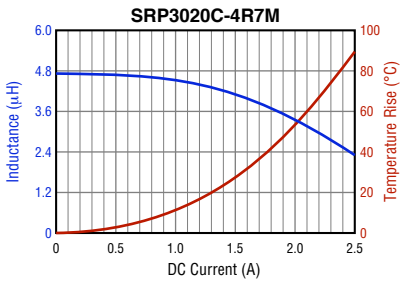
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## L vs. I Charts (Continued)



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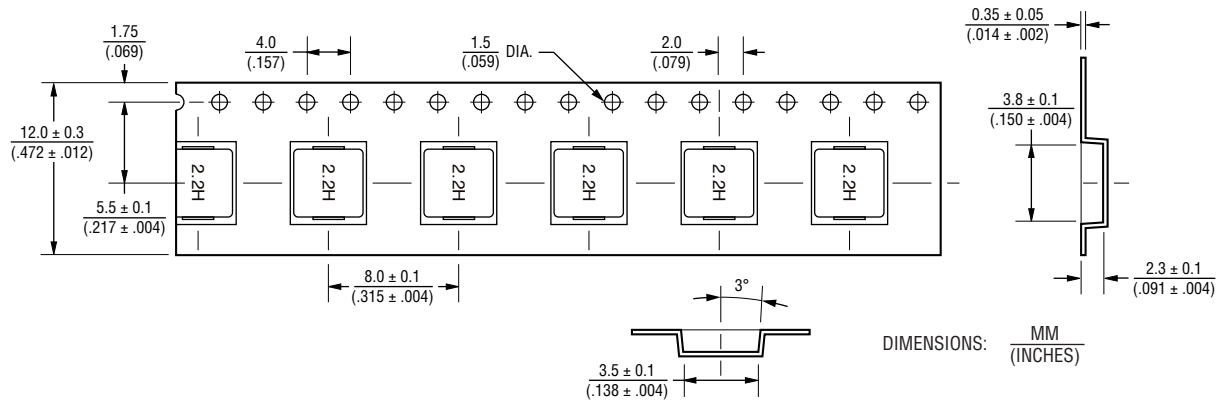
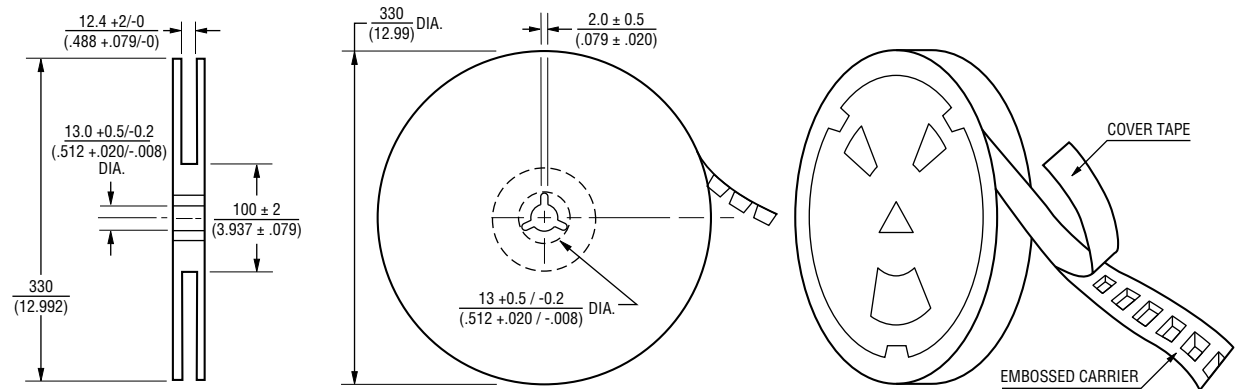
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## Packaging Specifications



USER DIRECTION OF FEED →

QTY: 3,000 PCS PER REEL

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EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

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