



### 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.

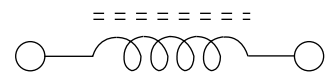
### Materials

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

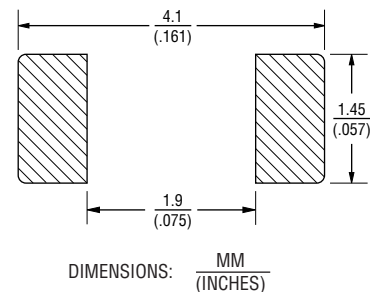
### How to Order

SRP3020C - 100M  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

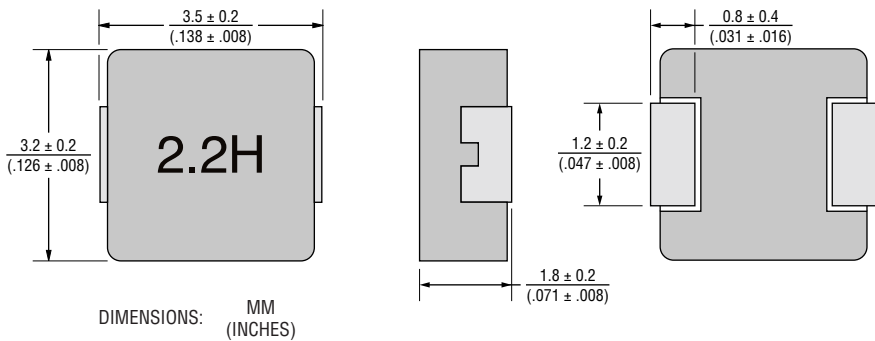
### Schematic



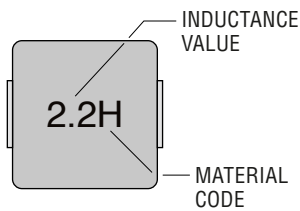
### Recommended Layout



### Product Dimensions



### Typical Part Marking



\* 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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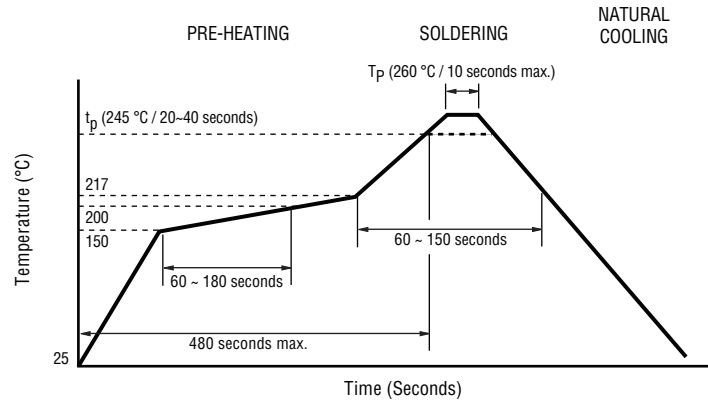


**WARNING**  
 Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# SRP3020C Series – Shielded Power Inductors

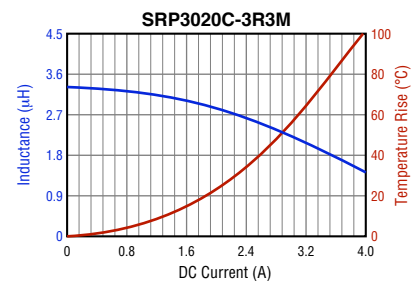
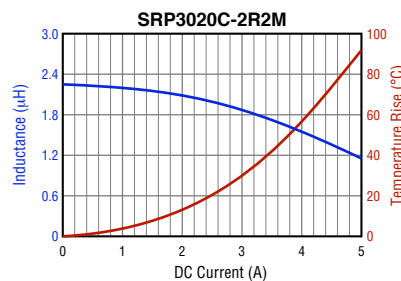
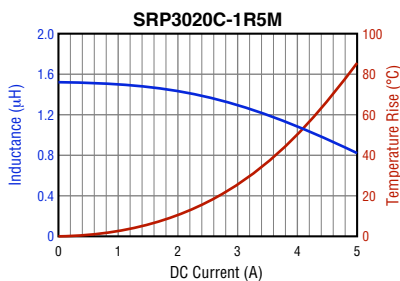
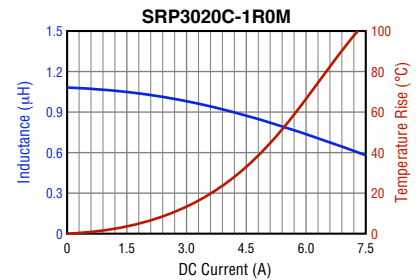
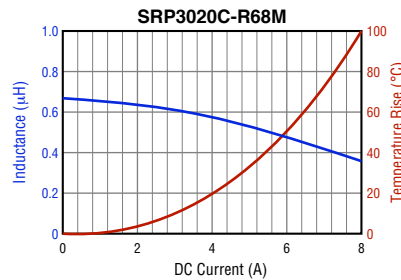
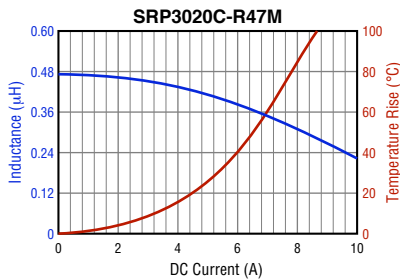
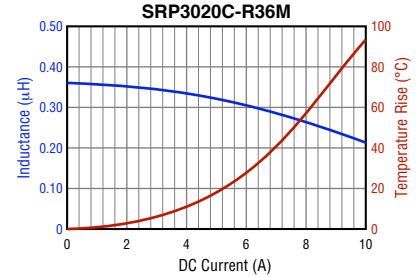
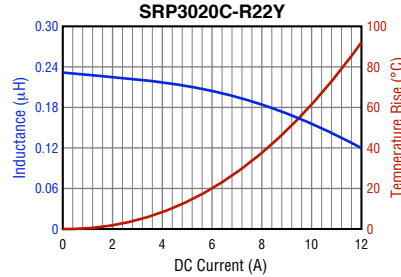
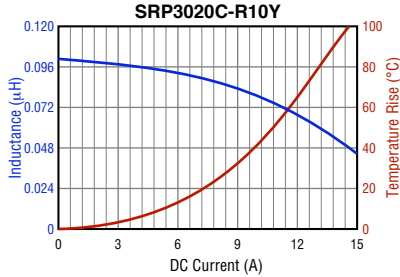
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## Soldering Profile



REFLOW TIMES: 3 MAX.

## L vs. I Charts



Specifications are subject to change without notice.

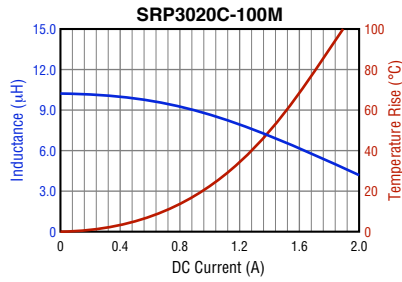
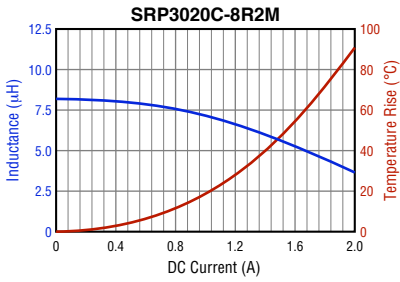
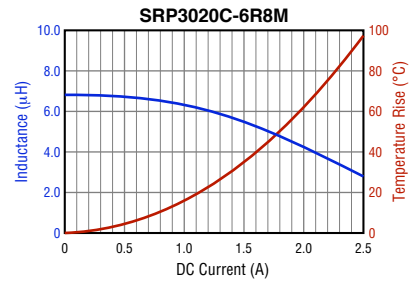
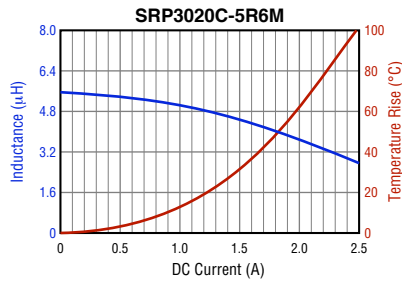
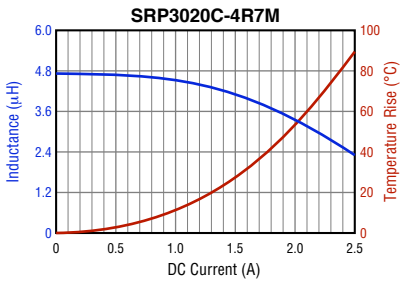
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## L vs. I Charts (Continued)



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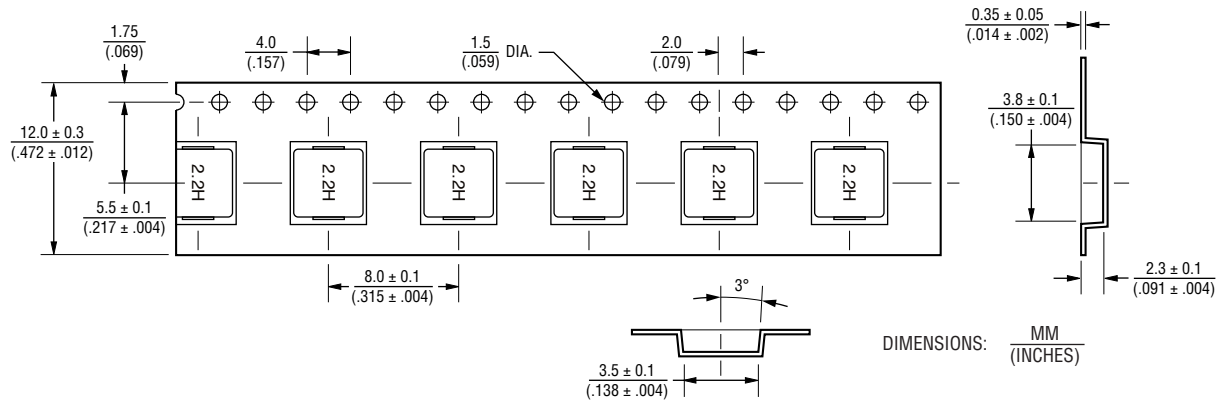
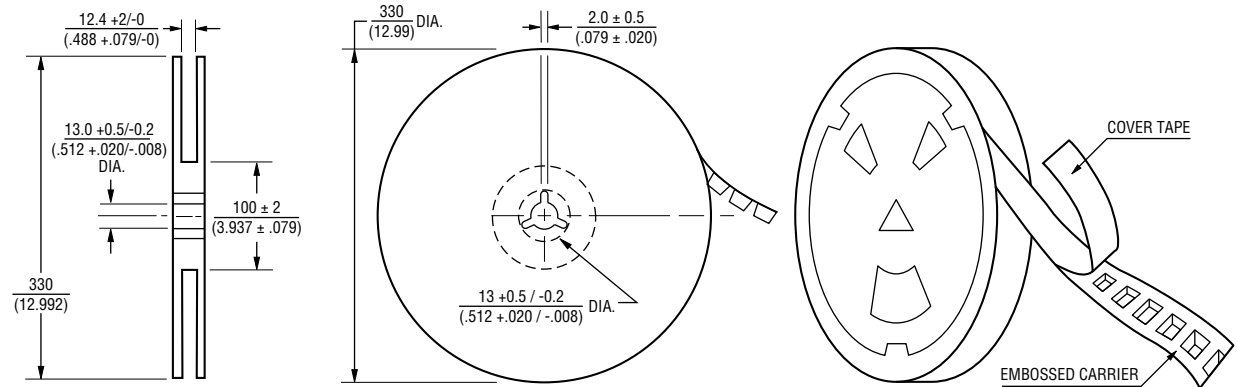
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# SRP3020C Series – Shielded Power Inductors

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## Packaging Specifications



USER DIRECTION OF FEED  
QTY: 3,000 PCS PER REEL

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