



Features

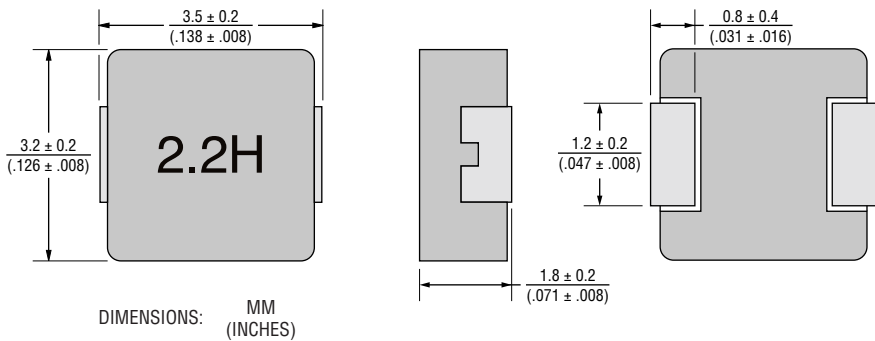
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range 0.1 to 10 μ H
- RoHS compliant* and halogen free**

SRP3020C Series – Shielded Power Inductors

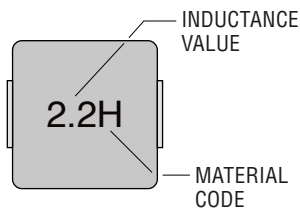
Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 100 kHz / 1 V | | Q Min. @ 100 kHz | SRF (MHz) Typ. | DCR (m Ω) Typ. | DCR (m Ω) Max. | I rms (A) Typ. | I sat (A) Typ. | Marking |
|--------------------|----------------------------|------------|------------------|----------------|------------------------|------------------------|----------------|----------------|---------|
| | L (μ 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 |

Product Dimensions



Typical Part Marking



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.

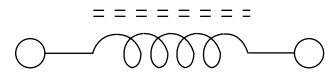
Materials

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

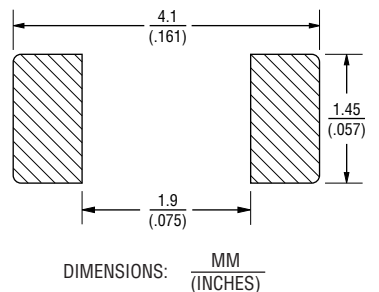
How to Order

SRP3020C - 100M
 Model _____
 Value Code (see table) _____

Schematic



Recommended Layout

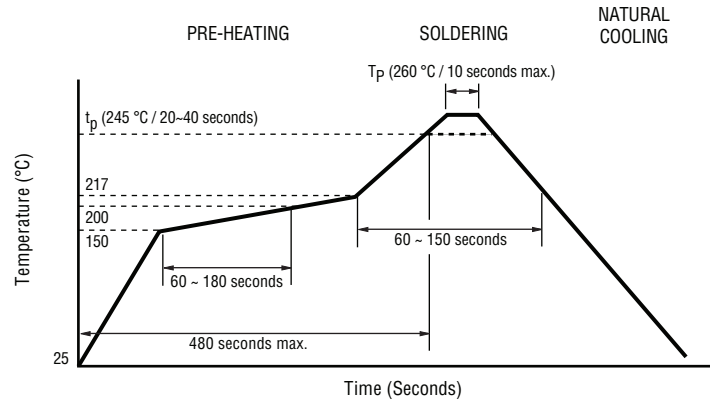


* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 ** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

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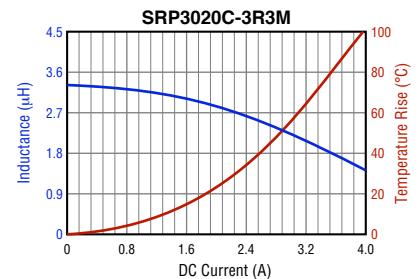
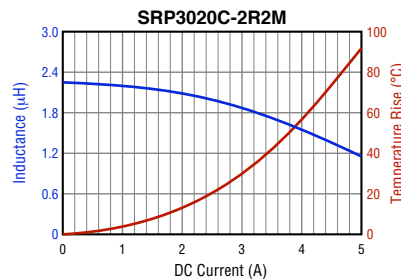
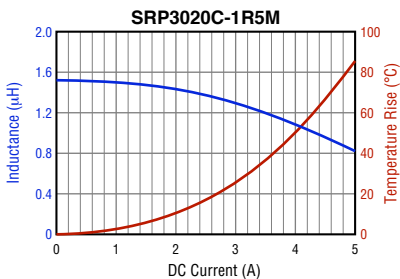
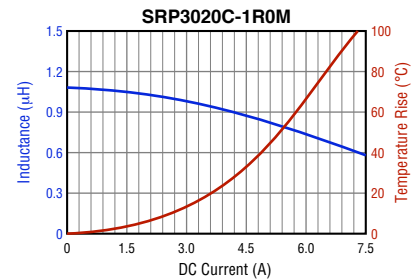
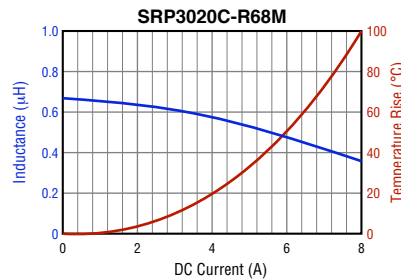
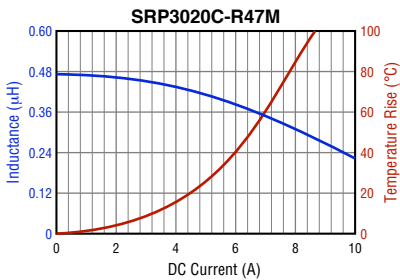
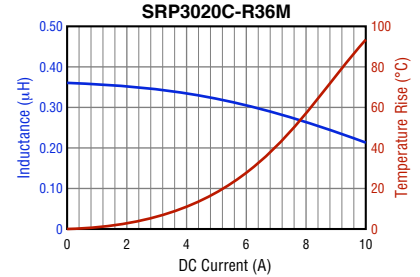
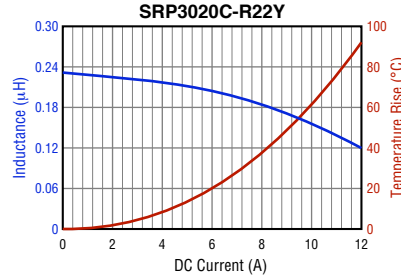
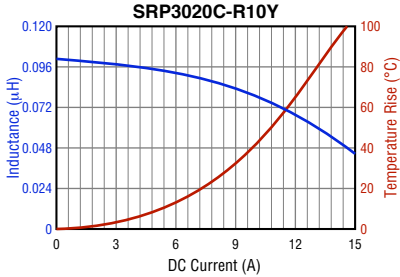
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Soldering Profile



REFLOW TIMES: 3 MAX.

L vs. I Charts



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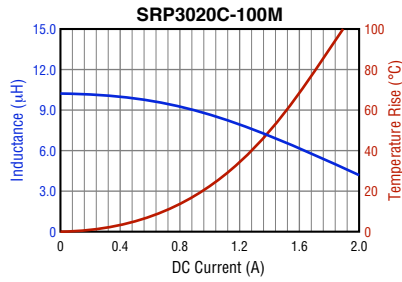
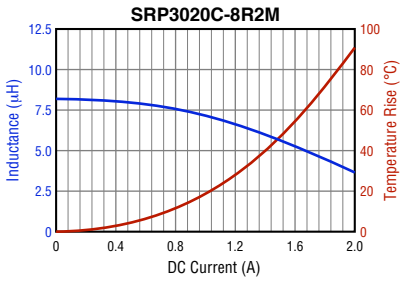
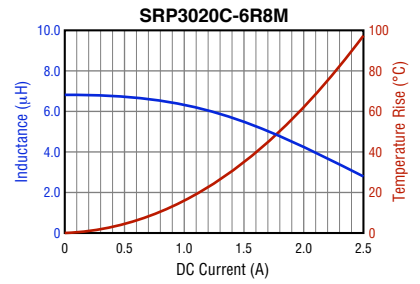
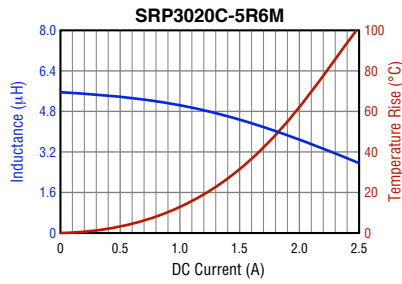
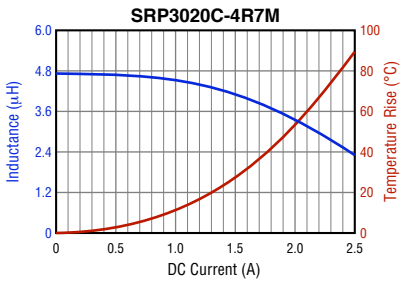
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L vs. I Charts (Continued)



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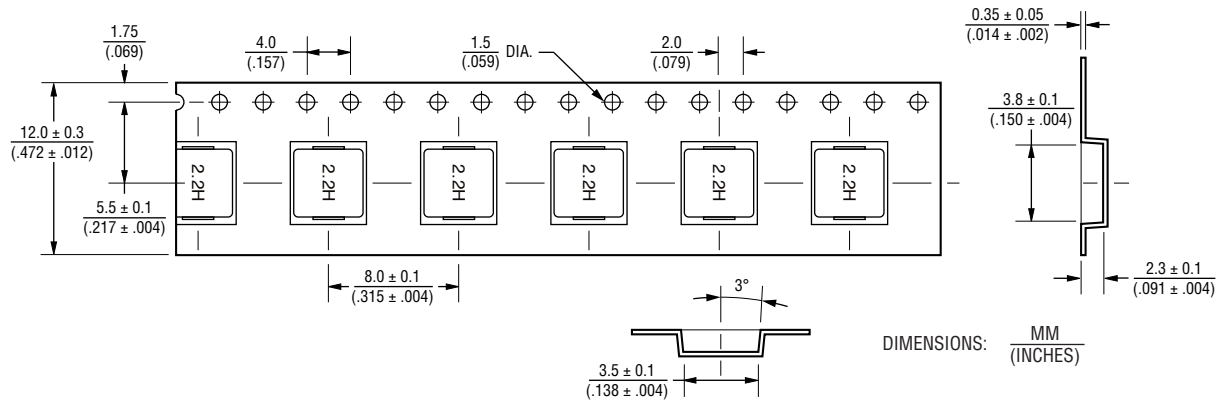
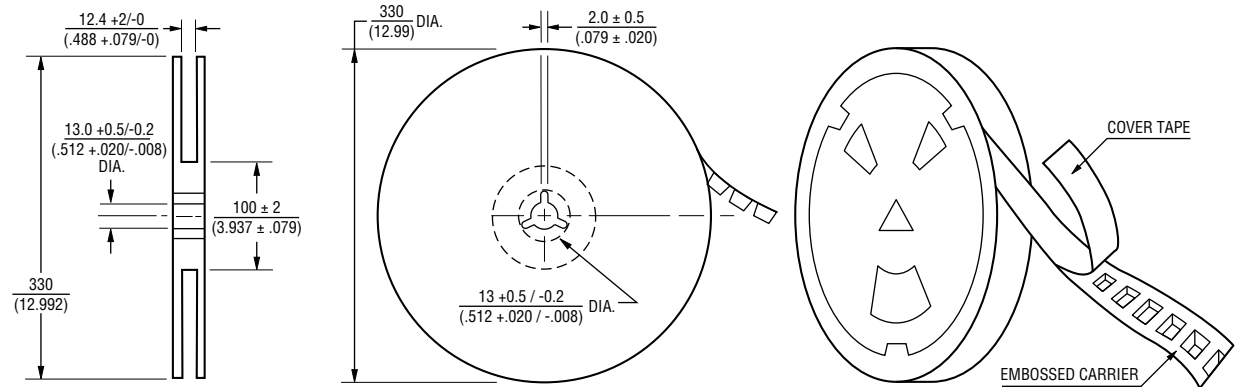
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SRP3020C Series – Shielded Power Inductors

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Packaging Specifications



USER DIRECTION OF FEED →

QTY: 3,000 PCS PER REEL

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

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REV. 08/20

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