



**THE DATASHEET OF
SRP5020TA-R47M**





Features

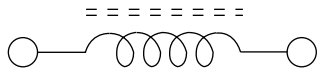
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 0.33 to 10 μ H
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

SRP5020TA 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 Ω) Typ. | DCR (m Ω) Max. | I _{rms} (A) Typ. | I _{sat} (A) Typ. | Terminal Type |
|--------------------|----------------------------|----------|--------------------------|----------------|------------------------|------------------------|---------------------------|---------------------------|---------------|
| | L (μ H) | Tol. (%) | | | | | | | |
| SRP5020TA-R33M | 0.33 | 20 | 10 | 117 | 6.3 | 7.3 | 12 | 21.3 | Lead Frame |
| SRP5020TA-R47M | 0.47 | 20 | 11 | 100 | 7.3 | 8.6 | 11.5 | 18 | Lead Frame |
| SRP5020TA-R68M | 0.68 | 20 | 12 | 90 | 11 | 12.4 | 10 | 12.8 | Lead Frame |
| SRP5020TA-1R0M | 1.00 | 20 | 13 | 64 | 17.5 | 20 | 7 | 13.7 | Lead Frame |
| SRP5020TA-1R2M | 1.20 | 20 | 14 | 58 | 23 | 28 | 6.2 | 11 | Lead Frame |
| SRP5020TA-1R5M | 1.50 | 20 | 15 | 52 | 26.5 | 30.5 | 5.5 | 9.8 | Lead Frame |
| SRP5020TA-2R2M | 2.20 | 20 | 16 | 38 | 42 | 50 | 4.2 | 9 | Lead Frame |
| SRP5020TA-3R3M | 3.30 | 20 | 17 | 35 | 66 | 76 | 3.3 | 7.3 | Lead Frame |
| SRP5020TA-4R7M | 4.70 | 20 | 18 | 30 | 103 | 116 | 2.8 | 5 | Lead Frame |
| SRP5020TA-5R6M | 5.60 | 20 | 19 | 25 | 112 | 122 | 2.5 | 4 | Lead Frame |
| SRP5020TA-6R8M | 6.80 | 20 | 20 | 23 | 130 | 150 | 2.4 | 3.8 | Lead Frame |
| SRP5020TA-8R2M | 8.20 | 20 | 21 | 20 | 148 | 171 | 2.3 | 3.5 | Lead Frame |
| SRP5020TA-100M | 10 | 20 | 22 | 18 | 180 | 199 | 2.3 | 3.4 | Lead Frame |

Electrical Schematic

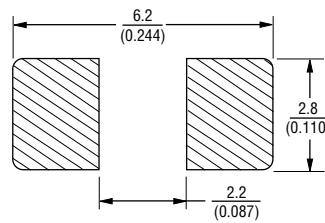


How to Order

SRP5020TA - 100M

Model _____
 Value Code (see table) _____

Recommended Layout



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

General Specifications

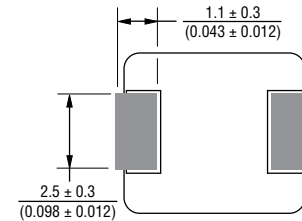
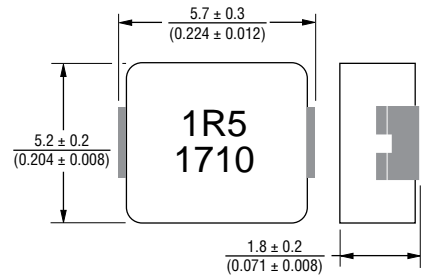
Operating Temperature-55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature (Component)-55 °C to +150 °C
 Rated Current
 Inductance drops 20 % at I_{sat}
 Temperature Rise ...40 °C at rated I_{rms}¹
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

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
 Packaging..... 3000 pcs. per 13-inch reel

Product Dimensions



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



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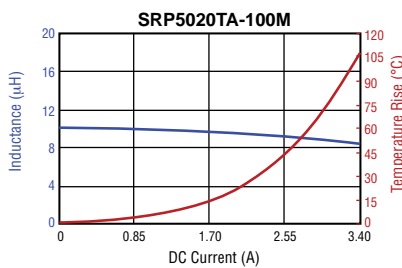
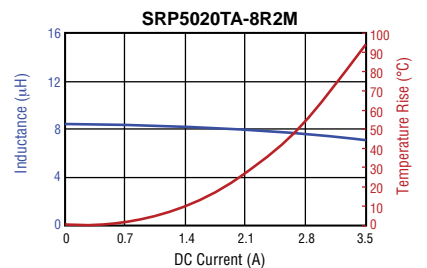
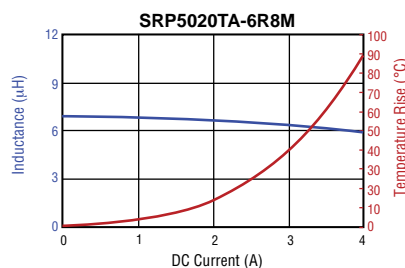
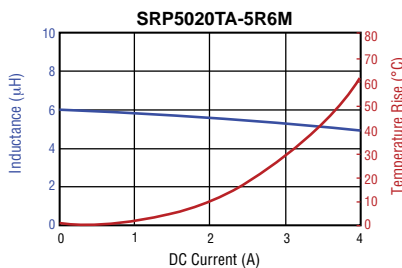
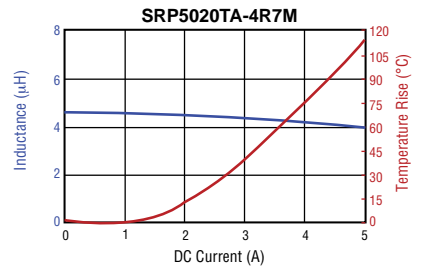
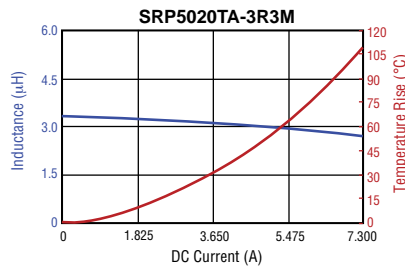
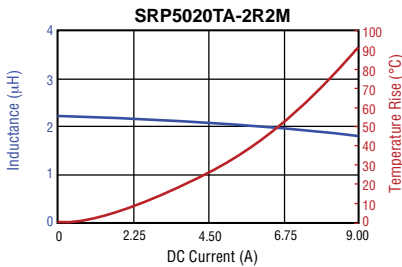
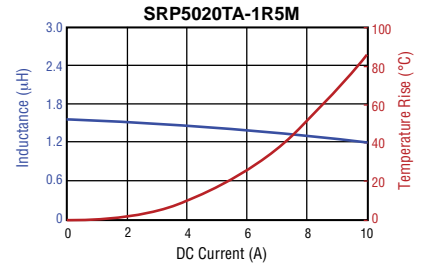
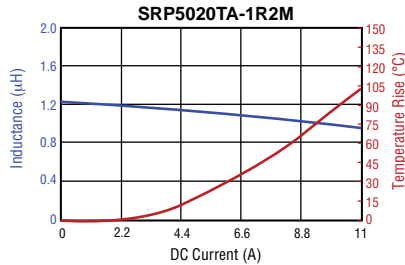
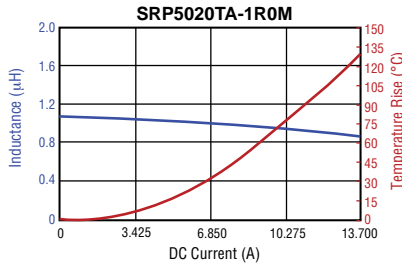
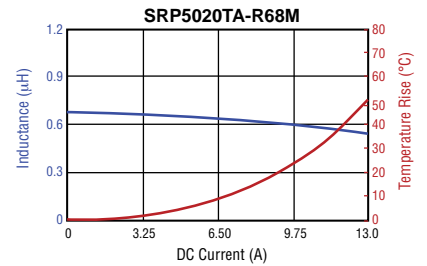
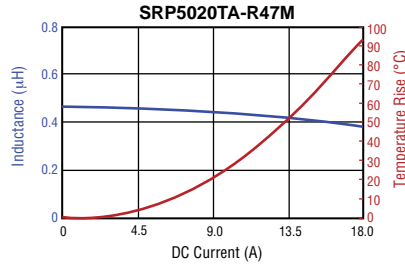
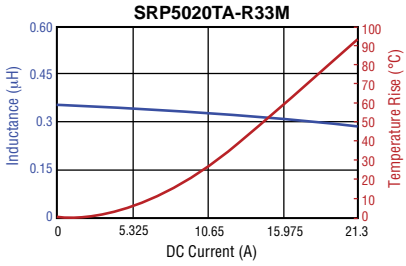
WARNING Cancer and Reproductive Harm www.P65Warnings.ca.gov

* 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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SRP5020TA Series - Shielded Power Inductors



L vs. I Charts



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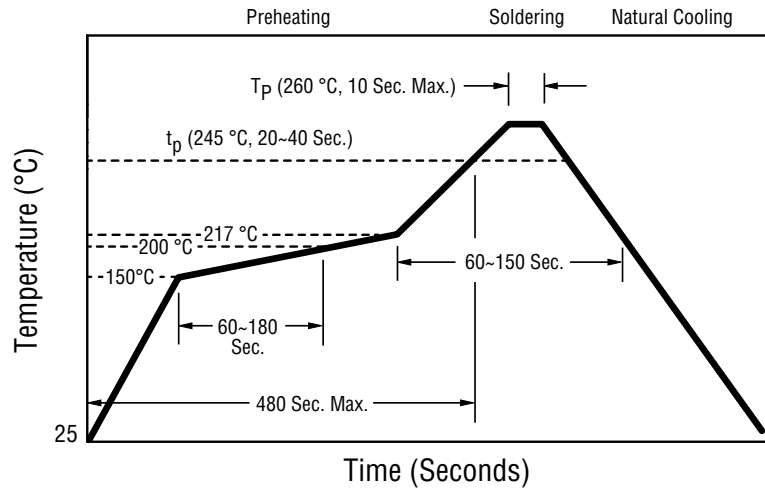
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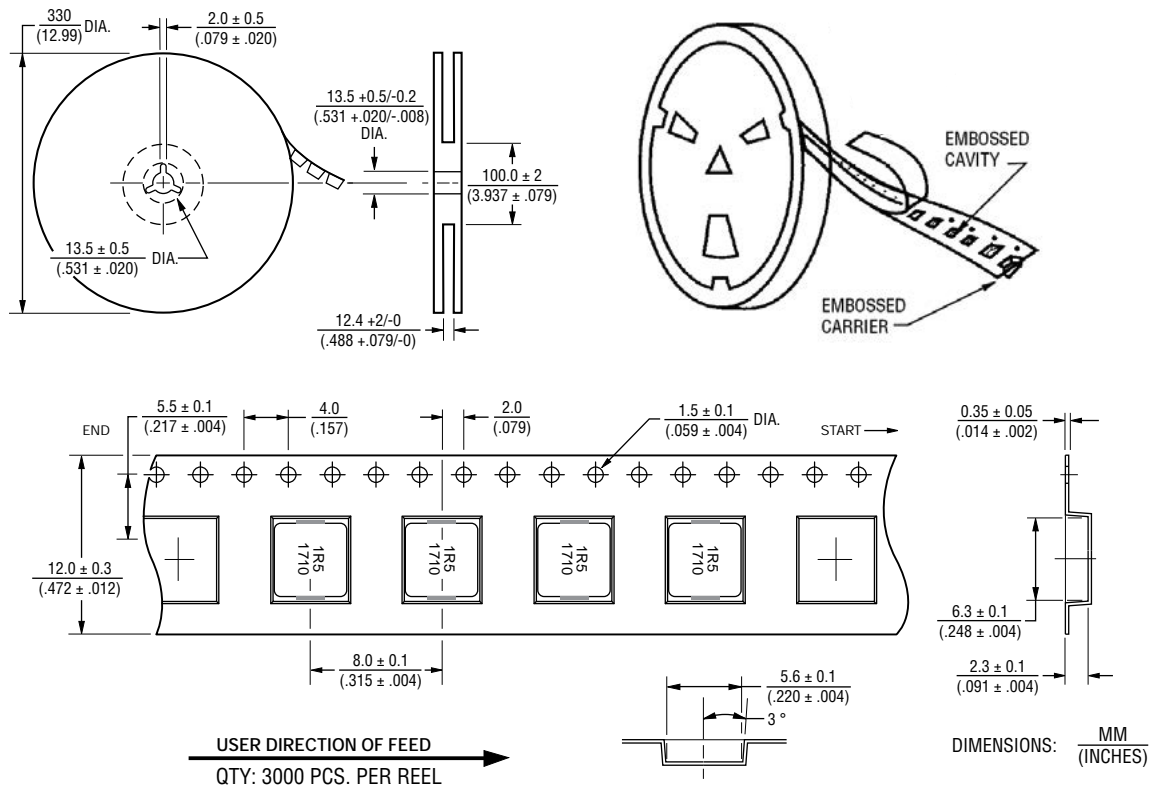
SRP5020TA Series - Shielded Power Inductors

BOURNS®

Soldering Profile



Packaging Specifications



REV. 11/19

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