



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 |

General Specifications

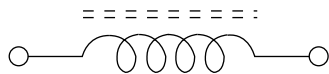
Operating Temperature-40 °C to +150 °C
 (Temperature rise included)
 Storage Temperature (Component)-40 °C to +150 °C
 Rated Current Inductance drops 20 % at I_{sat}
 Temperature Rise ...40 °C at rated I_{rms}¹
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

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

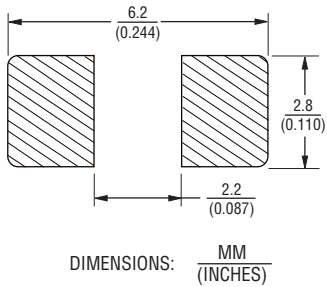
Electrical Schematic



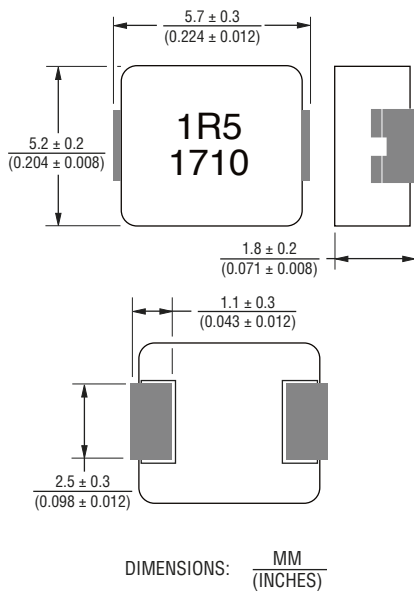
How to Order

SRP5020TA - 100M
 Model _____
 Value Code (see table) _____

Recommended Layout



Product Dimensions



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 EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com
 The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com
 www.bourns.com

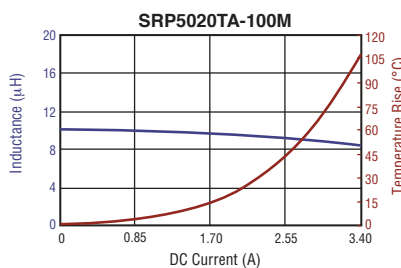
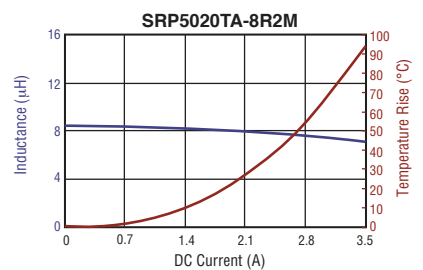
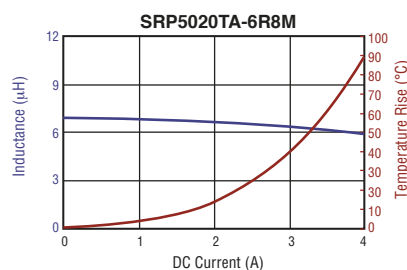
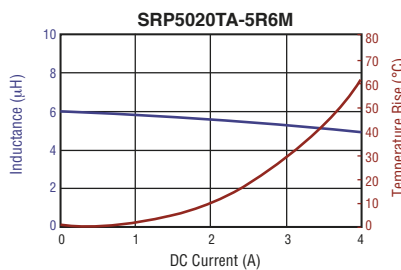
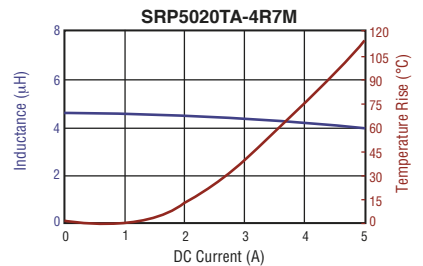
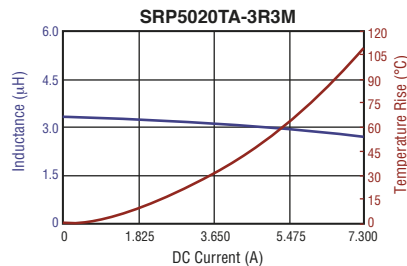
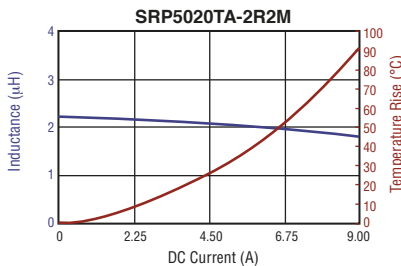
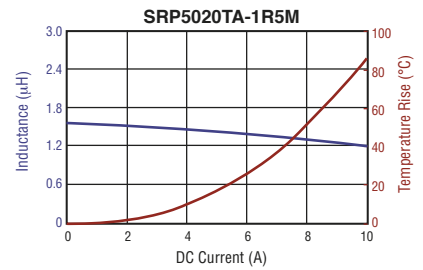
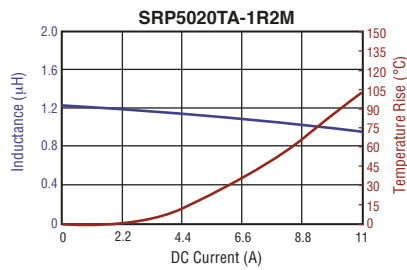
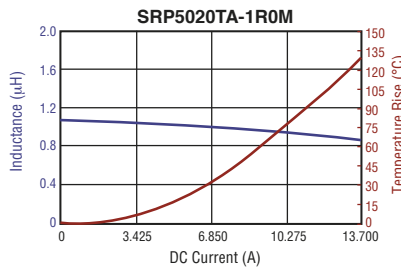
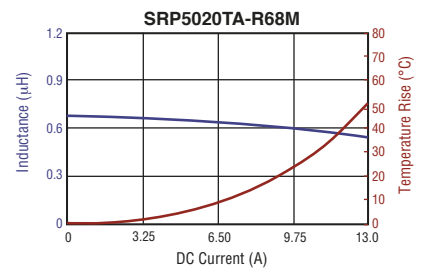
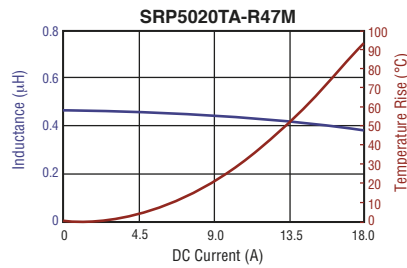
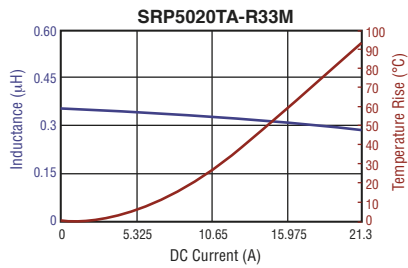
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* 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.
 Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.
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SRP5020TA Series - Shielded Power Inductors

BOURNS®

L vs. I Charts



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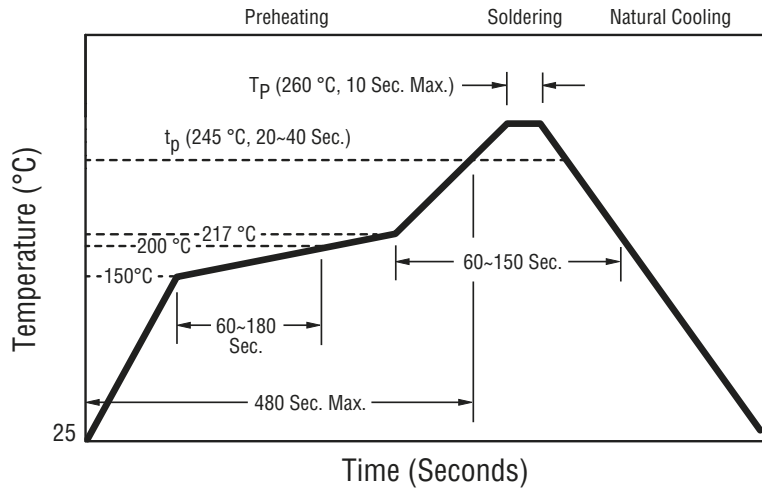
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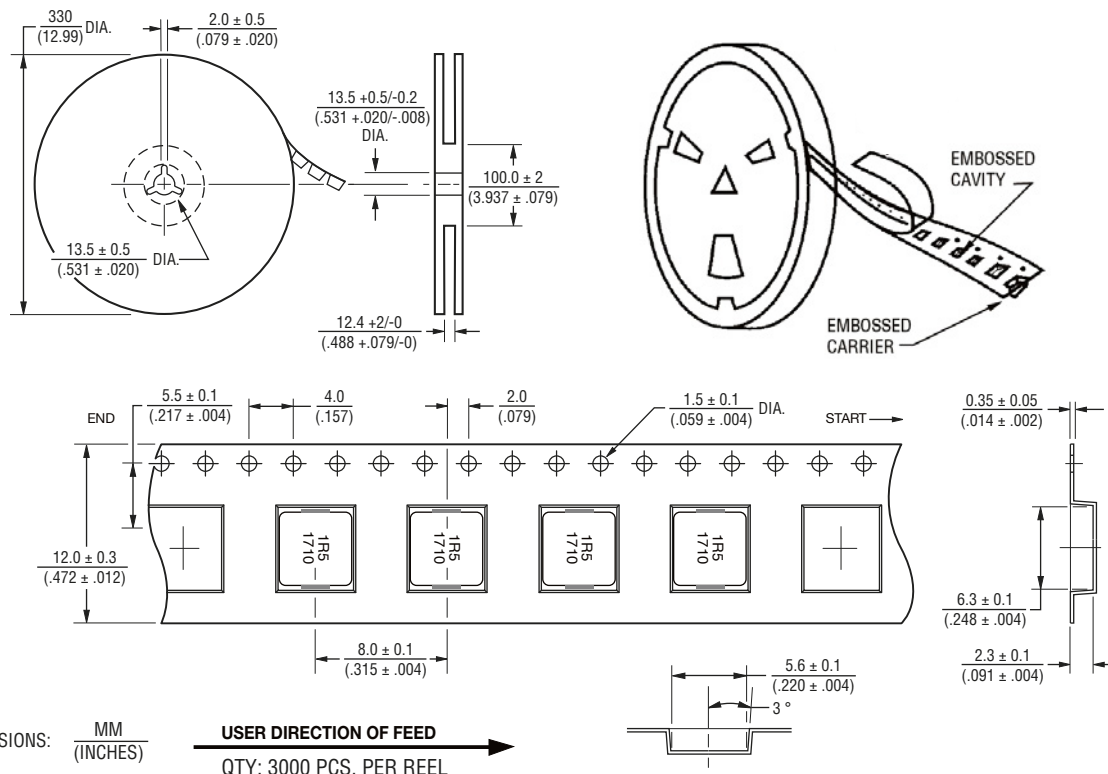
SRP5020TA Series - Shielded Power Inductors

BOURNS®

Soldering Profile



Packaging Specifications



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