



**THE DATASHEET OF
SRP7050TA-1R5M**





Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.33 to 68 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP7050TA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

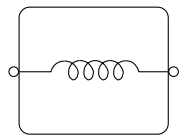
| Bourns Part Number | Inductance @ 100 KHz / 1 V | | Q (Min.) @100 KHz / 1 V | SRF (MHz) Typ. | DCR (m Ω) Typ. | DCR (m Ω) Max. | I _{rms} (A) | I _{sat} (A) | Terminal Type |
|--------------------|----------------------------|----------|-------------------------|----------------|------------------------|------------------------|----------------------|----------------------|---------------|
| | L (μ H) | Tol. (%) | | | | | | | |
| SRP7050TA-R33M | 0.33 | ± 20 | 10 | 100 | 2.5 | 3 | 25 | 32 | Lead Frame |
| SRP7050TA-R40M | 0.40 | ± 20 | 10 | 100 | 3.1 | 3.7 | 23 | 31 | |
| SRP7050TA-R47M | 0.47 | ± 20 | 10 | 95 | 3.5 | 3.9 | 22 | 30 | |
| SRP7050TA-R56M | 0.56 | ± 20 | 10 | 80 | 3.6 | 4.2 | 20 | 27 | |
| SRP7050TA-R60M | 0.60 | ± 20 | 10 | 80 | 3.8 | 4.3 | 19 | 25 | |
| SRP7050TA-R68M | 0.68 | ± 20 | 10 | 75 | 4 | 4.5 | 18 | 24 | |
| SRP7050TA-R82M | 0.82 | ± 20 | 10 | 70 | 4.6 | 4.9 | 16.5 | 22 | |
| SRP7050TA-1R0M | 1.0 | ± 20 | 10 | 50 | 6.1 | 6.5 | 15 | 20 | |
| SRP7050TA-1R2M | 1.2 | ± 20 | 15 | 45 | 6.7 | 7.5 | 14 | 18 | |
| SRP7050TA-1R5M | 1.5 | ± 20 | 15 | 43 | 8.6 | 9 | 12 | 16.5 | |
| SRP7050TA-1R8M | 1.8 | ± 20 | 15 | 38 | 9.5 | 11 | 12 | 15 | |
| SRP7050TA-2R2M | 2.2 | ± 20 | 15 | 30 | 11.2 | 12 | 10 | 14 | |
| SRP7050TA-3R3M | 3.3 | ± 20 | 15 | 26 | 19 | 20.9 | 8 | 12 | |
| SRP7050TA-4R7M | 4.7 | ± 20 | 15 | 22 | 28 | 30.8 | 6.5 | 10 | |
| SRP7050TA-5R6M | 5.6 | ± 20 | 15 | 20 | 43.5 | 49 | 6 | 9 | |
| SRP7050TA-6R8M | 6.8 | ± 20 | 15 | 18 | 46 | 51.5 | 5.5 | 8.5 | |
| SRP7050TA-8R2M | 8.2 | ± 20 | 15 | 16 | 56 | 63 | 5 | 8 | |
| SRP7050TA-100M | 10 | ± 20 | 15 | 15 | 60 | 69 | 4 | 7.5 | |
| SRP7050TA-150M | 15 | ± 20 | 15 | 12 | 81 | 92 | 3.5 | 6 | |
| SRP7050TA-220M | 22 | ± 20 | 15 | 9 | 140 | 170 | 2.5 | 5.5 | |
| SRP7050TA-330M | 33 | ± 20 | 15 | 8 | 173 | 200 | 2 | 3.5 | |
| SRP7050TA-470M | 47 | ± 20 | 15 | 8 | 290 | 330 | 1.9 | 2.7 | |
| SRP7050TA-560M | 56 | ± 20 | 15 | 7 | 342 | 396 | 1.6 | 2.1 | |
| SRP7050TA-680M | 68 | ± 20 | 15 | 6 | 386 | 445 | 1.2 | 2 | |

Soldering Profile



Reflow Times:
3 Times Max.

Schematic



How to Order

SRP7050TA - 100 M

Model _____
 Value Code (see table) _____
 Tolerance Code _____



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. 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.

General Specifications

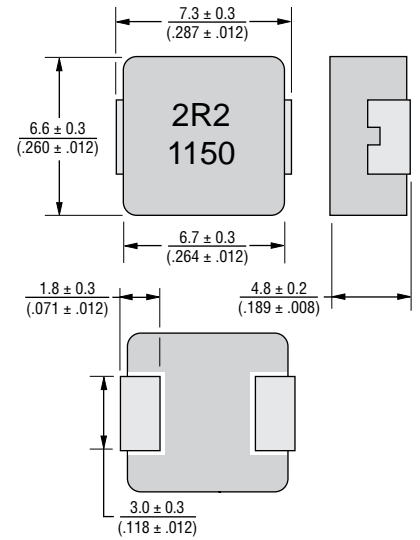
Operating Temperature-55 °C to +150 °C
 (Temperature rise included)
 Storage Temperature-55 °C to +150 °C
 Rated Current Inductance drops 20 % at I_{sat}
 Temperature Rise40 °C at rated I_{rms}
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A
 Note 1: Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

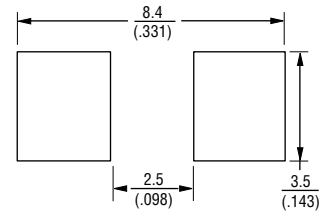
Core Carbonyl powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 800 pcs. per 13-inch reel

Product Dimensions

Lead Frame Terminal



Recommended Layout

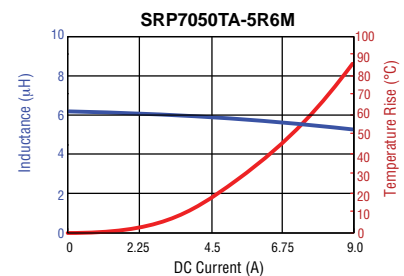
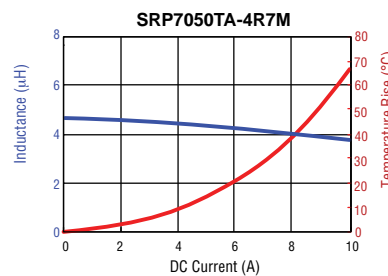
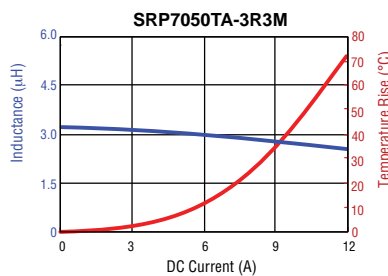
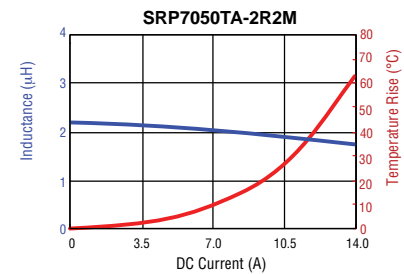
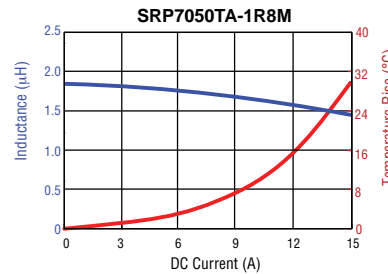
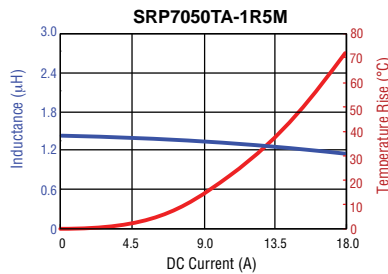
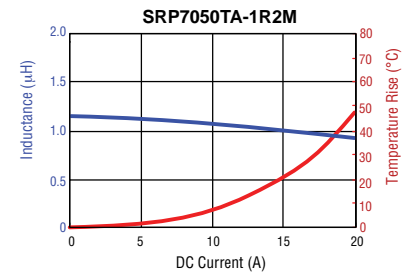
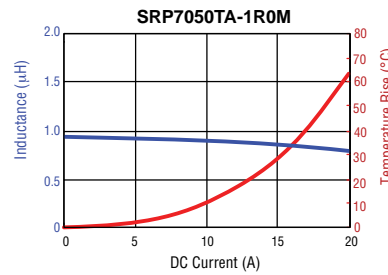
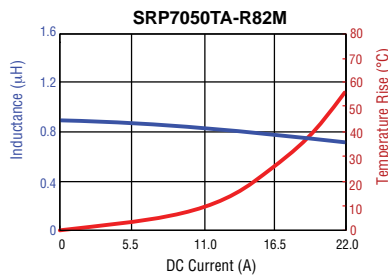
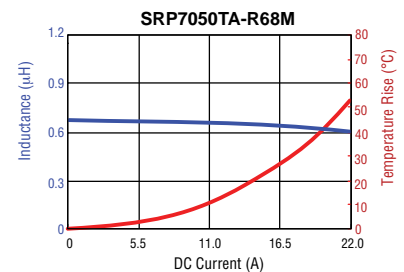
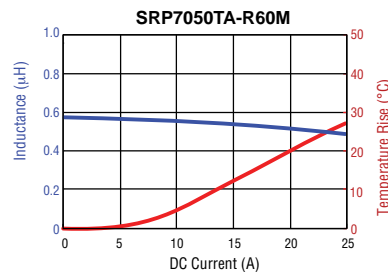
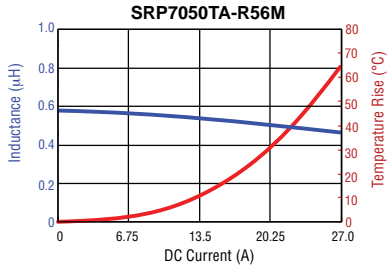
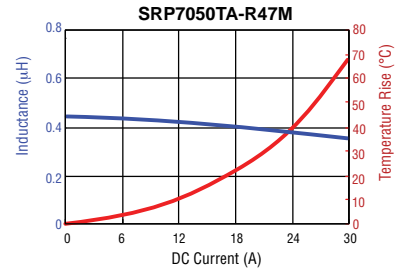
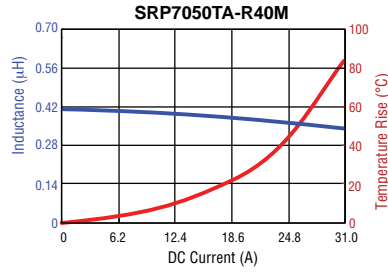
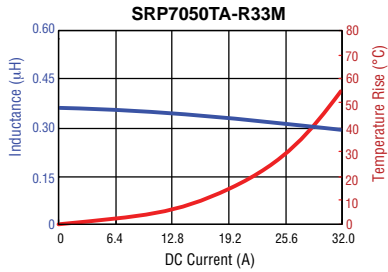


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

SRP7050TA Series - Shielded Power Inductors



L vs. I Charts



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Users should verify actual device performance in their specific applications.

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SRP7050TA Series - Shielded Power Inductors



L vs. I Charts (Continued)



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