



Features

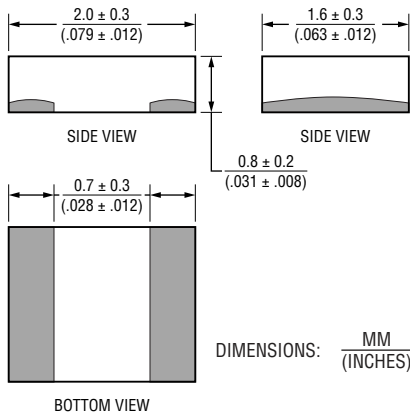
- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2010TMA Series - Shielded Power Inductors

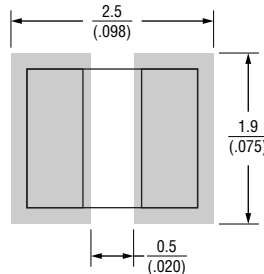
Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance @ 1 MHz / 1 V | | Q 1 MHz Typ. | SRF (MHz) Typ. | DCR (mΩ) Typ. | DCR (mΩ) Max. | Irms (A) Typ. | Isat (A) Typ. |
|-----------------|--------------------------|--------|--------------|----------------|---------------|---------------|---------------|---------------|
| | L (μH) | Tol. % | | | | | | |
| SRP2010TMA-R24M | 0.24 | 20 | 15 | 130 | 18 | 20.5 | 6.5 | 7.7 |
| SRP2010TMA-R33M | 0.33 | 20 | 15 | 112 | 21 | 26 | 5.7 | 7.0 |
| SRP2010TMA-R47M | 0.47 | 20 | 15 | 82 | 28 | 32 | 5.3 | 6.0 |
| SRP2010TMA-R56M | 0.56 | 20 | 15 | 80 | 31 | 37.2 | 4.6 | 5.2 |
| SRP2010TMA-R68M | 0.68 | 20 | 15 | 78 | 44 | 50 | 4.0 | 5.0 |
| SRP2010TMA-1R0M | 1.00 | 20 | 15 | 60 | 49 | 59 | 3.6 | 4.4 |
| SRP2010TMA-1R5M | 1.50 | 20 | 15 | 52 | 80 | 96 | 2.6 | 3.0 |
| SRP2010TMA-2R2M | 2.20 | 20 | 15 | 42 | 130 | 150 | 2.3 | 2.65 |

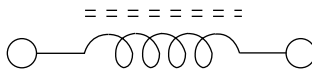
Product Dimensions



Recommended Layout



Electrical Schematic



Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

General Specifications

Operating Temperature

..... -55 °C to +150 °C

(Temperature rise included)

Storage Temperature (Component)

..... -55 °C to +150 °C

Temperature Rise ... 40 °C at rated Irms¹
Rated Current

..... Inductance drops 30 % at Isat

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 Ni/Sn

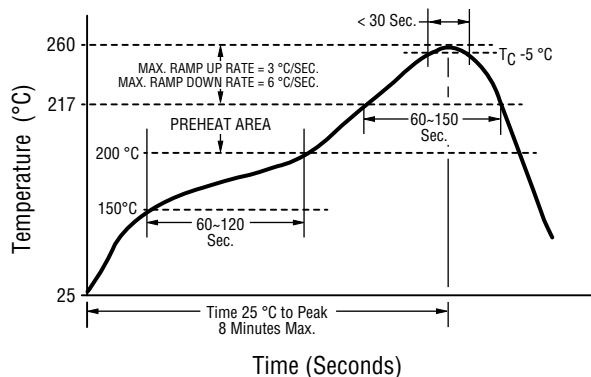
Packaging..... 2000 pcs. per 7-inch reel

How to Order

SRP2010TMA - 1R0M

Model _____
Value Code (see table) _____

Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

| Profile Feature | Pb Free Assembly |
|---|------------------------------------|
| Preheat - Temperature Min. (T _{smin}) - Temperature Max. (T _{smax}) - Time (t _s) from T _{smin} to T _{smax} | 150 °C 200 °C 60-120 seconds |
| Ramp-up Rate (T _L to T _p) | 3 °C/second max. |
| Liquidous temperature (T _L) Time (t _L) maintained above T _L | 217 °C 60-150 seconds |
| Peak package body temperature (T _p) | 260 °C |
| Time within 5 °C of Actual Peak Temperature (t _p) | < 30 seconds |
| Ramp-Down Rate (T _p to T _L) | 6 °C/second max. |
| Time 25 °C to Peak Temperature | 8 minutes max. |

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* 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.

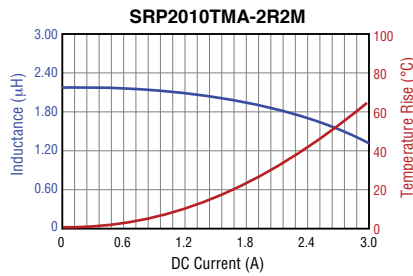
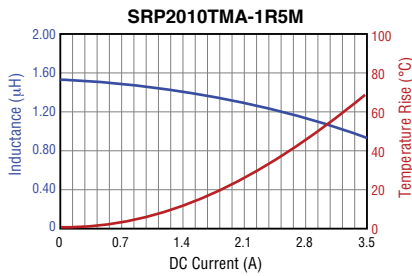
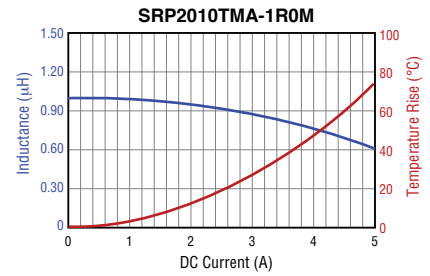
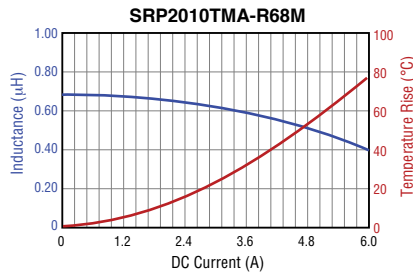
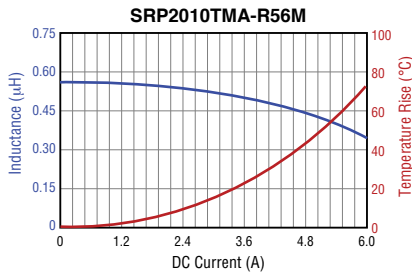
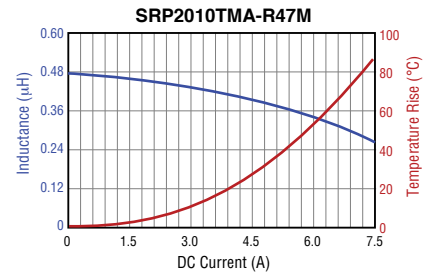
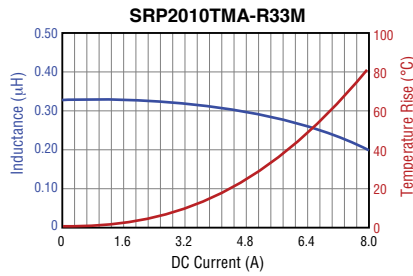
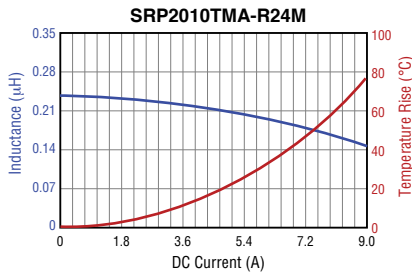


WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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L vs. I Charts



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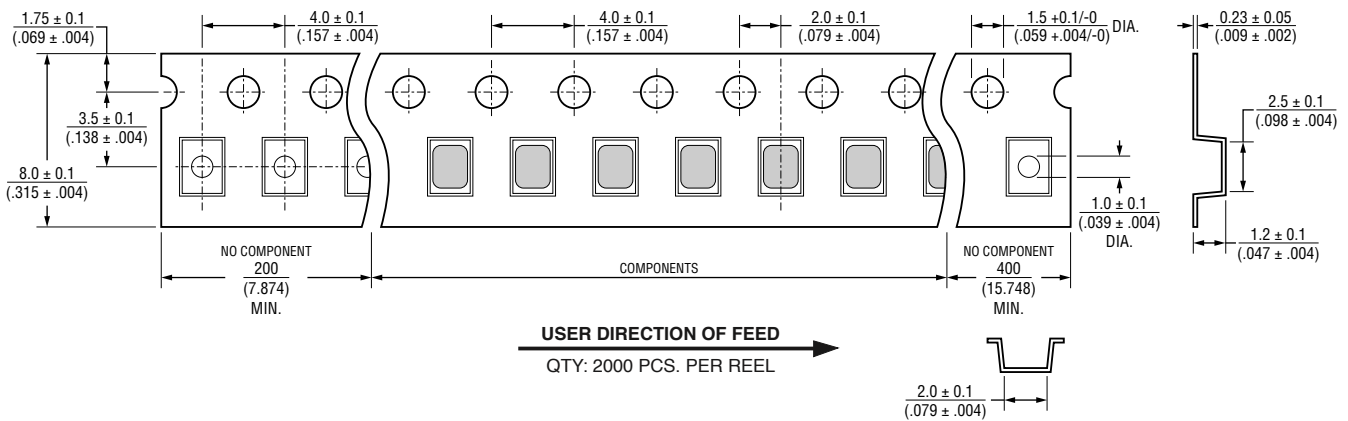
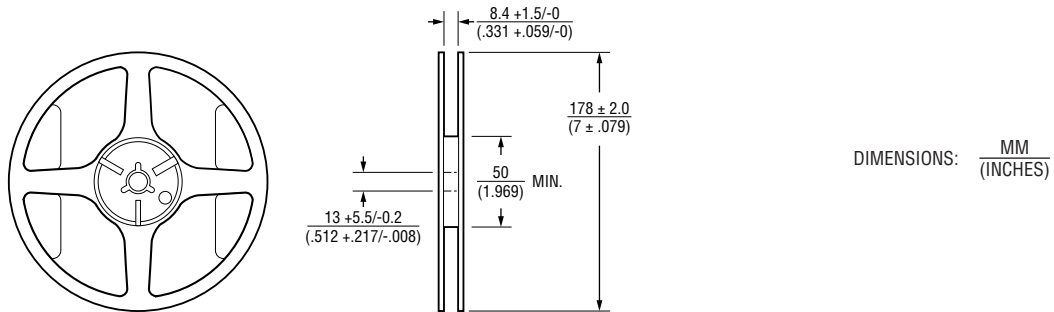
Users should verify actual device performance in their specific applications.

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BOURNS®

Packaging Specifications



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