



Features

- Wirewound
- Shielded construction
- Metal alloy powder core
- High saturation current
- Low profile
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Additional Information

Click these links for more information:



PRODUCT
SELECTOR

TECHNICAL
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INVENTORY

SAMPLES

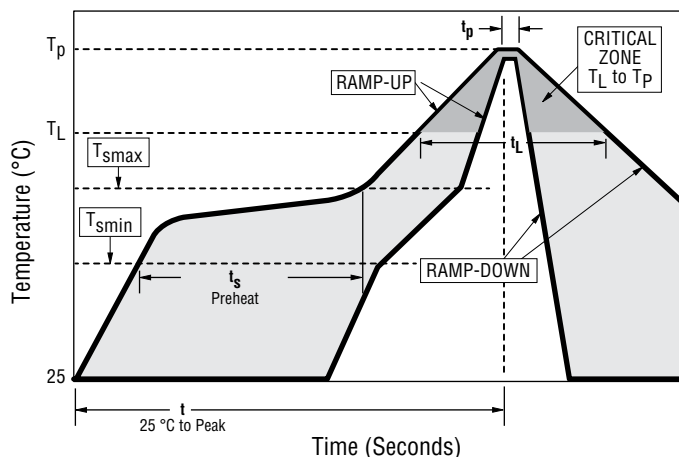
CONTACT

SRP2512A Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part Number | Inductance @ 1 MHz / 1 V | | Q (Typ.) @ 1 MHz / 1 V | SRF (MHz) Typ. | DCR (mΩ) Typ. | DCR (mΩ) Max. | Irms (A) Typ. | Isat (A) Typ. |
|-----------------------|--------------------------------|-------------|------------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| | L (μH) | Tol. (%) | | | | | | |
| SRP2512A-R47M | 0.47 | ±20 | 39 | 129 | 21 | 25 | 4.6 | 5.3 |
| SRP2512A-R68M | 0.68 | ±20 | 39 | 104 | 29 | 35 | 3.7 | 5.0 |
| SRP2512A-1R0M | 1.0 | ±20 | 39 | 82 | 41 | 49 | 3.5 | 4.4 |
| SRP2512A-1R5M | 1.5 | ±20 | 39 | 71 | 64 | 77 | 2.5 | 3.2 |
| SRP2512A-2R2M | 2.2 | ±20 | 39 | 62 | 85 | 98 | 2.27 | 3.0 |
| SRP2512A-3R3M | 3.3 | ±20 | 39 | 50 | 125 | 150 | 2.0 | 2.1 |
| SRP2512A-4R7M | 4.7 | ±20 | 39 | 37 | 196 | 235 | 1.55 | 1.9 |

Soldering Profile



| Profile Feature | Pb Free Assembly |
|---|------------------------------------|
| Average Ramp Rate (TSmax to Tp) | 3 °C/second max. |
| Preheat <ul style="list-style-type: none"> - Temperature Min. (TSmin) - Temperature Max. (TSmax) - Time (tsmin to tsmax) | 150 °C 200 °C 60-180 seconds |
| Time Maintained Above <ul style="list-style-type: none"> - Temperature (TL) - Time (tL) | 217 °C 60-150 seconds |
| Peak Temperature (Tp) | 260 °C +0/-5 °C |
| Time within 5 °C of Actual Peak Temperature (Tp) | 20-40 seconds |
| Ramp-Down Rate | 6 °C/second max. |
| Time 25 °C to Peak Temperature | 8 minutes max. |



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... -40 °C to +125 °C
(Temperature rise included)

Storage Temperature (Component)

..... -50 °C to +125 °C

Rated Current

..... Inductance drops 30 % at Isat

Temperature Rise40 °C at rated Irms

Moisture Sensitivity Level (MSL) 1

ESD Classification (HBM)..... N/A

Materials

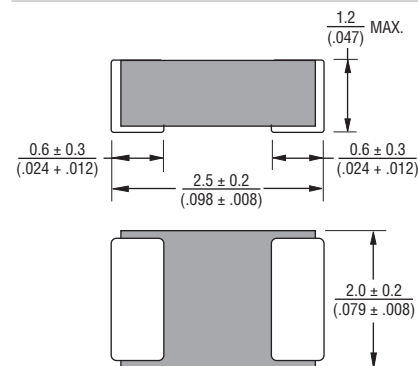
Core.....Metal alloy powder

WireEnamelled copper

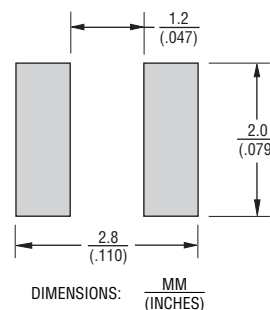
Terminal Finish Sn

Packaging..... 3000 pcs. per 7-inch reel

Product Dimensions



Recommended Layout



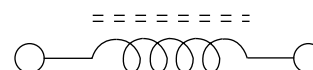
How to Order

SRP2512A - R47M

Model _____

Value Code (see table) _____

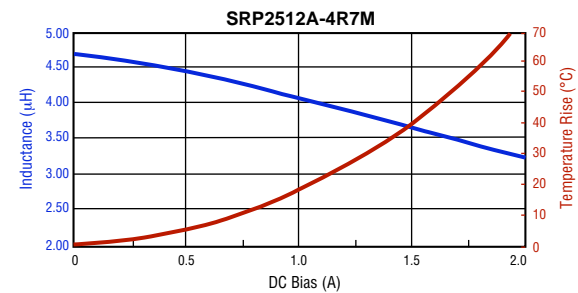
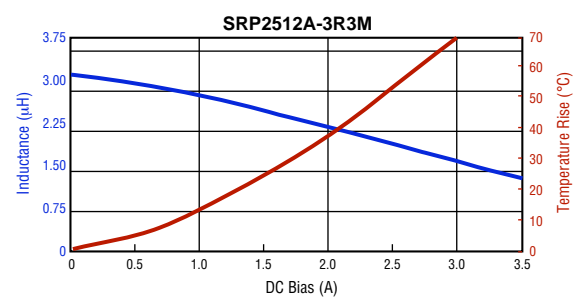
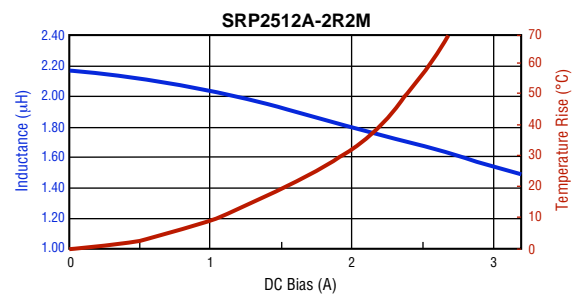
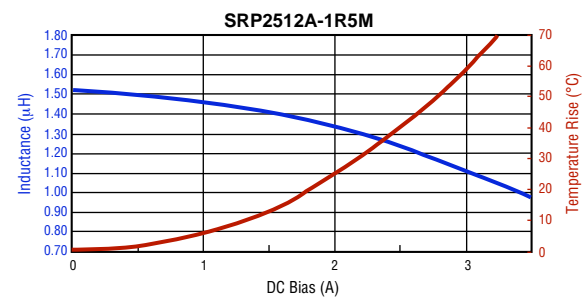
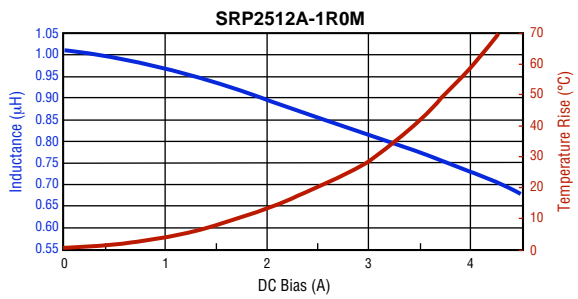
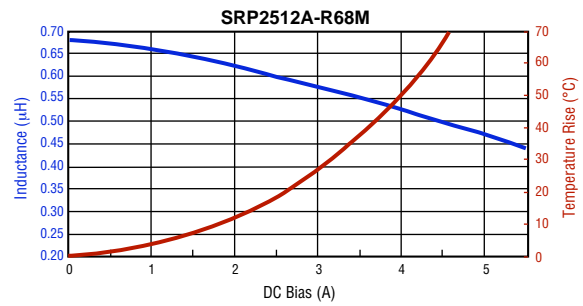
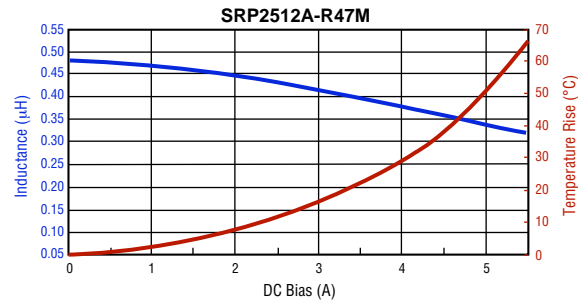
Electrical Schematic



SRP2512A Series - Shielded Power Inductors

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L vs. I Charts



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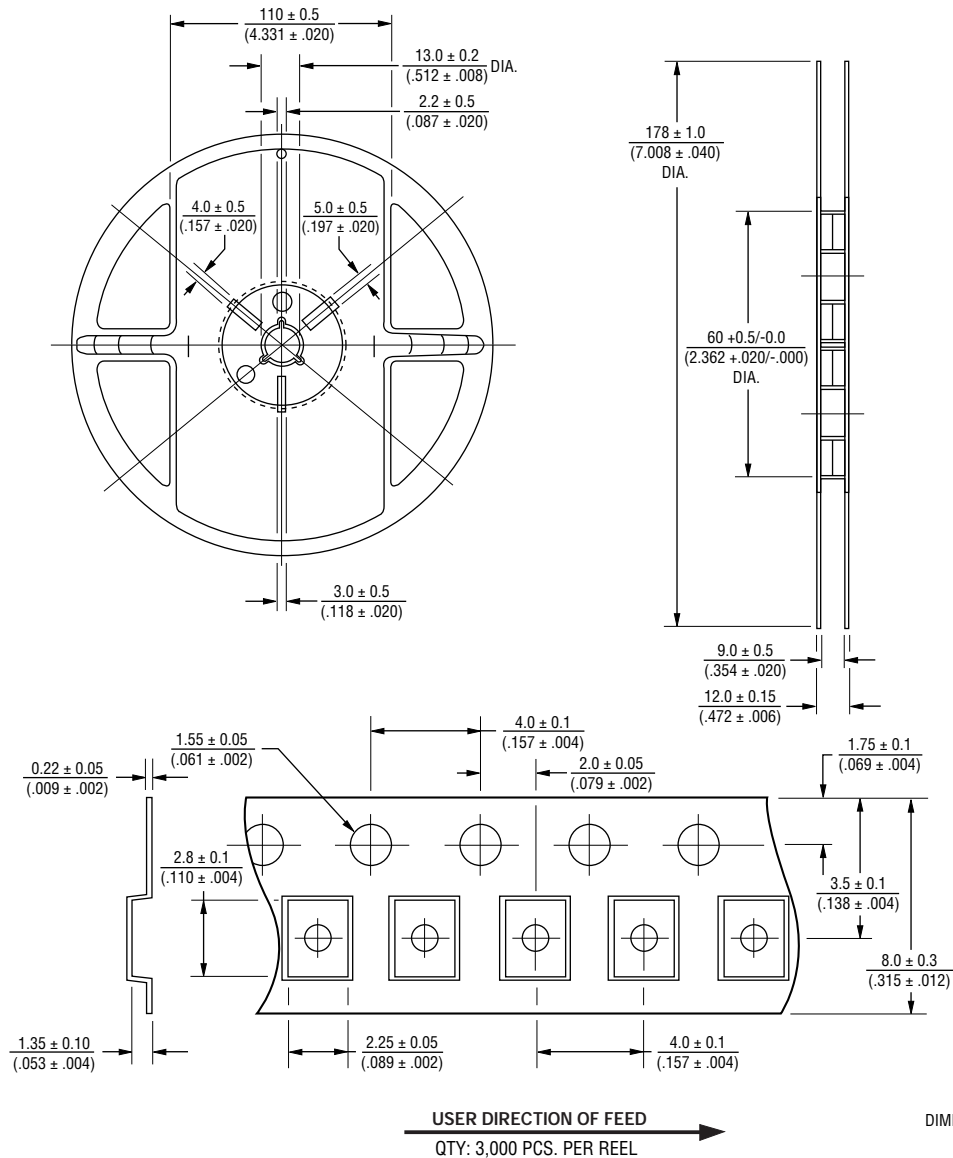
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SRP2512A Series - Shielded Power Inductors

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Packaging Specifications



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REV. 06/24

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