



Features

- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR

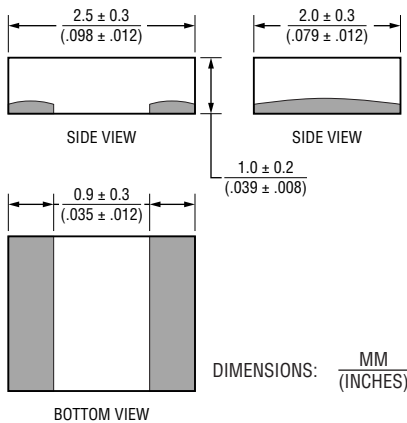
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2512TMA Series - Shielded Power Inductors

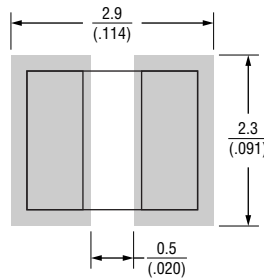
Electrical Specifications @ 25 °C

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. %						
SRP2512TMA-R24M	0.24	20	15	172	11	13.2	7.3	7.8
SRP2512TMA-R33M	0.33	20	15	165	14	17	6.8	7.5
SRP2512TMA-R47M	0.47	20	15	112	15	18	6.2	6.2
SRP2512TMA-R68M	0.68	20	15	90	23	27.6	5.3	5.5
SRP2512TMA-1R0M	1.00	20	15	63	33	39.6	4.5	5.0
SRP2512TMA-1R5M	1.50	20	15	55	43	51.6	3.7	4.0
SRP2512TMA-2R2M	2.20	20	15	45	66	79.2	3.1	3.4

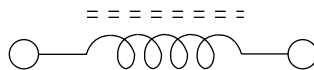
Product Dimensions



Recommended Layout



Electrical Schematic



Additional Information

Click these links for more information:



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

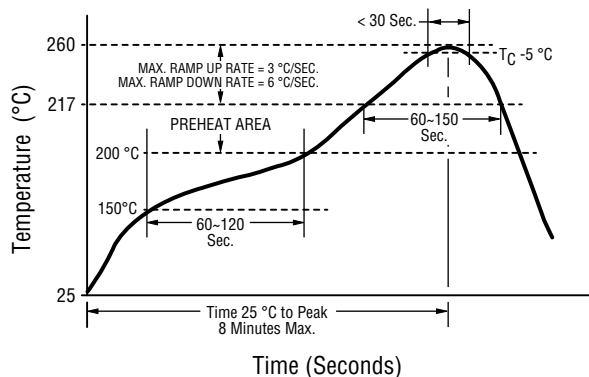
Core.....Metal alloy powder
Wire.....Enameled copper
Terminal Finish.....Ni/Sn
Packaging.....2000 pcs. per 7-inch reel

How to Order

SRP2512TMA - 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.
Liquidus 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.



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

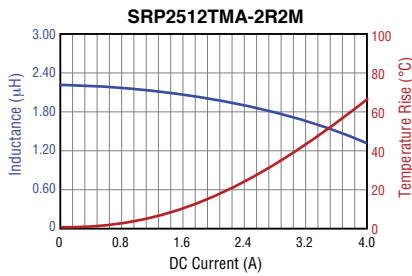
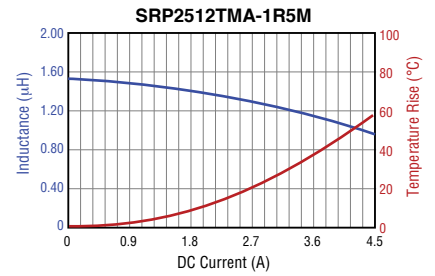
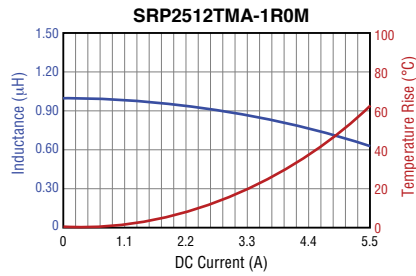
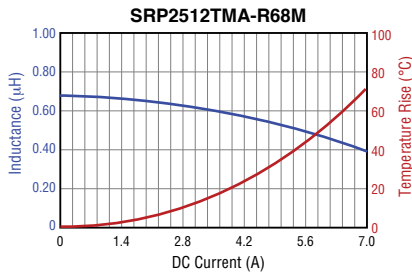
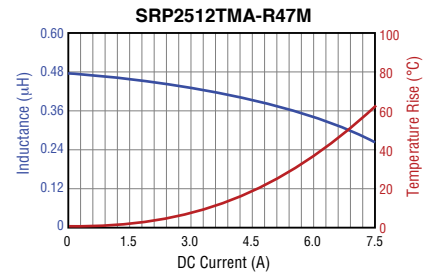
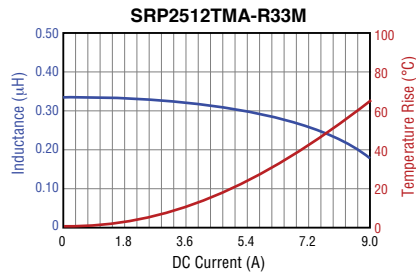
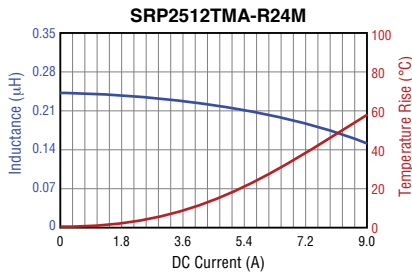
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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

SRP2512TMA Series - Shielded Power Inductors

BOURNS®

L vs. I Charts



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Technical drawing of a wheel and axle assembly. The drawing includes a side view of the wheel on the left and a cross-sectional view of the axle on the right. The wheel has a central hub with a circular opening and four spokes. The axle is a long, thin rod passing through the center of the wheel. Dimensions are provided in millimeters (MM) and inches (INCHES).

Dimensions (MM / INCHES):

- Top axle diameter: $8.4 \pm 1.5 / 0$ (0.331 ± 0.059 / 0)
- Distance from top of wheel to top of axle: 178 ± 2.0 (7 ± 0.079)
- Distance from top of wheel to center of axle: 50 (1.969) MIN.
- Distance from bottom of wheel to center of axle: $13 \pm 5.5 / 0.2$ (0.512 ± 0.217 / 0.008)



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[SRP2512TMA-R47M](#) [SRP2512TMA-R68M](#)