



Features

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

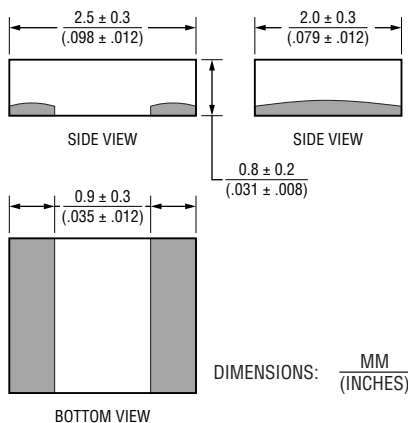
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2510TMA Series - Shielded Power Inductors

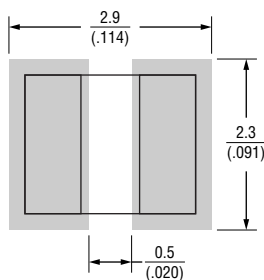
Electrical Specifications @ 25 °C

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. %						
SRP2510TMA-R22M	0.22	20	15	150	12	15	7.2	7.7
SRP2510TMA-R33M	0.33	20	15	110	16	19	6.6	7.2
SRP2510TMA-R47M	0.47	20	15	85	20	24	5.8	5.1
SRP2510TMA-R68M	0.68	20	15	70	25	30	5.1	5.2
SRP2510TMA-1R0M	1.00	20	15	55	42	50.4	4.3	4.6
SRP2510TMA-1R5M	1.50	20	15	45	60	72	3.3	3.5
SRP2510TMA-2R2M	2.20	20	15	35	85	102	2.8	3.0

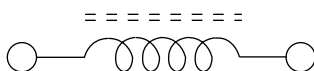
Product Dimensions



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

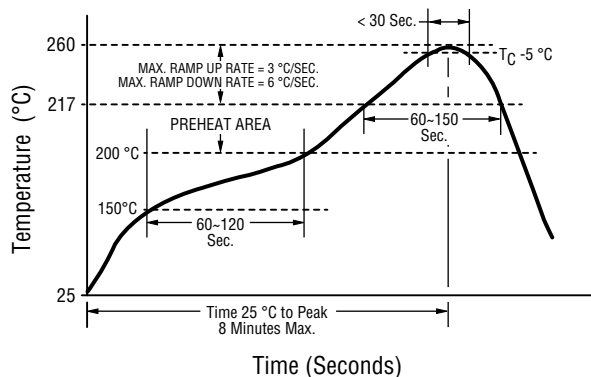
Core.....Metal alloy powder
WireEnameled copper
Terminal Finish Ni/Sn
Packaging..... 2000 pcs. per 7-inch reel

How to Order

SRP2510TMA - 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

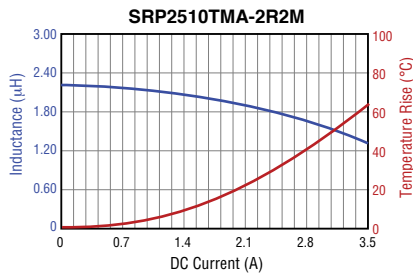
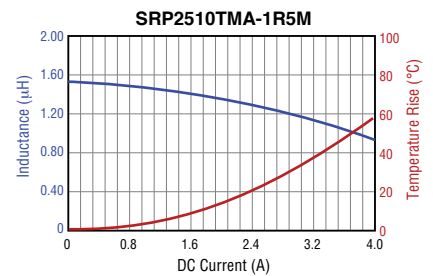
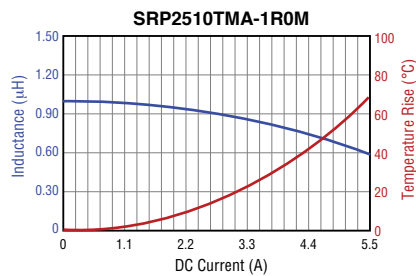
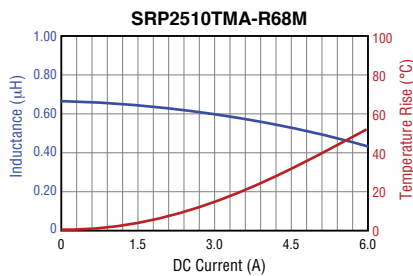
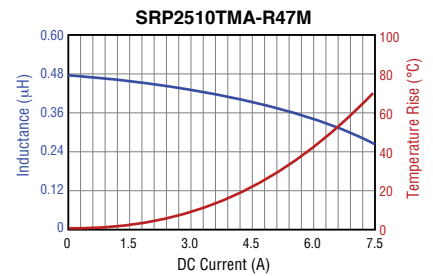
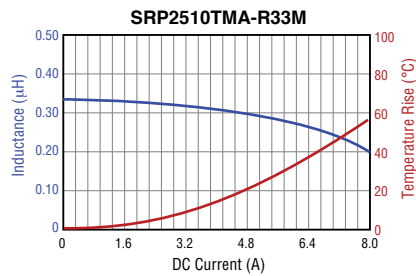
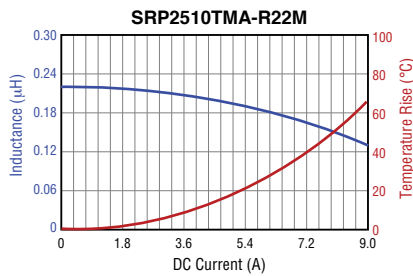
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* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine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

SRP2510TMA Series - Shielded Power Inductors

BOURNS®

L vs. I Charts



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BOURNS®

Technical drawing of a wheel and its dimensions. The drawing includes a side view of the wheel on the left and a detailed cross-sectional view on the right. The cross-section shows the wheel's profile with various dimensions and tolerances.

Dimensions and Tolerances:

- Overall width: $8.4 \pm 1.5/-0$ (0.331 ± 0.059/-0)
- Inner width: $13 \pm 5.5/-0.2$ (0.512 ± 0.217/-0.008)
- Inner diameter: 50 (1.969) MIN.
- Outer diameter: 178 ± 2.0 (7 ± 0.079)

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



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