

Features

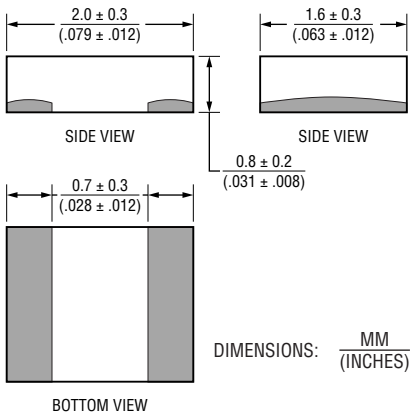
- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2010TMA Series - Shielded Power Inductors

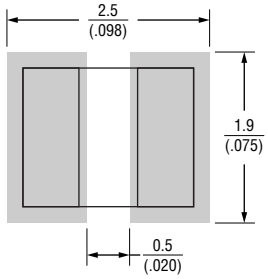
Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 1 V L (µH)	Tol. %	Q 1 MHz Typ.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
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

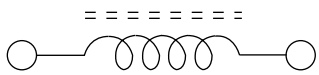
Product Dimensions



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 Irms[1]
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

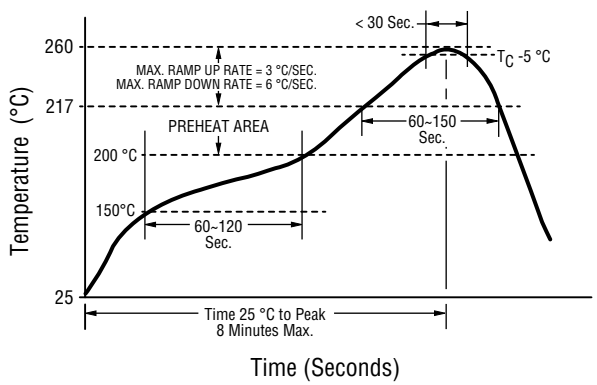
Core ..... Metal alloy powder
Wire ..... Enameled copper
Terminal Finish ..... Ni/Sn
Packaging ..... 2000 pcs. per 7-inch reel

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.

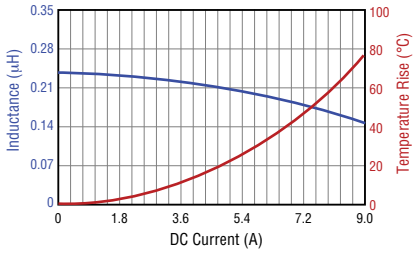
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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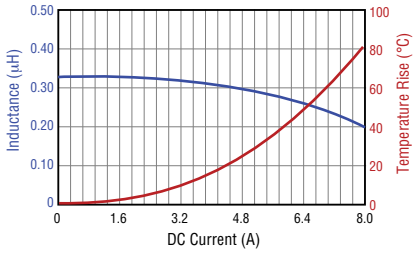
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

L vs. I Charts

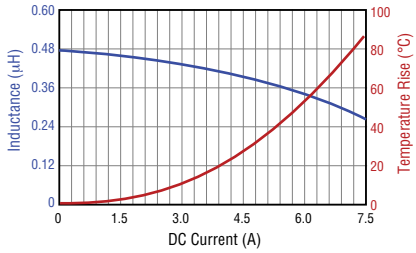
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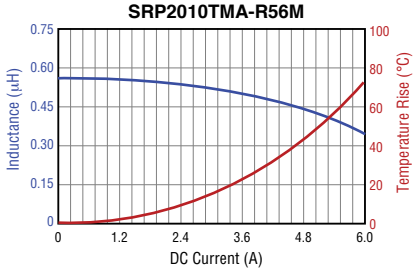
SRP2010TMA-R33M



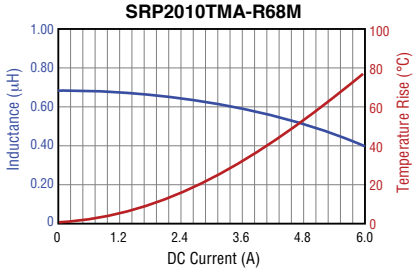
SRP2010TMA-R47M



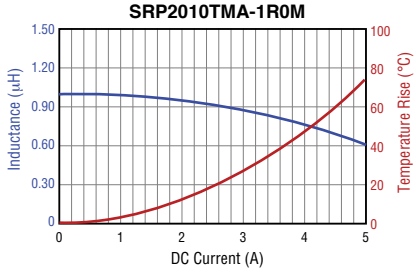
SRP2010TMA-R56M



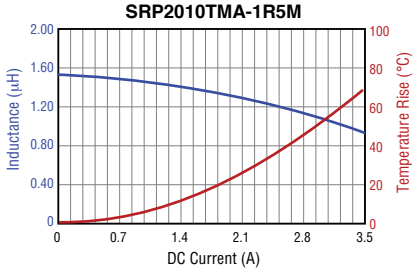
SRP2010TMA-R68M



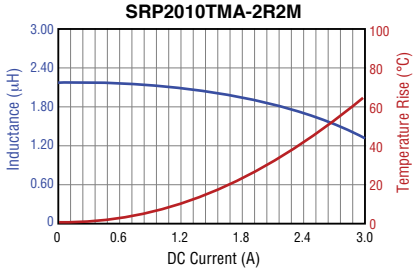
SRP2010TMA-1R0M



SRP2010TMA-1R5M

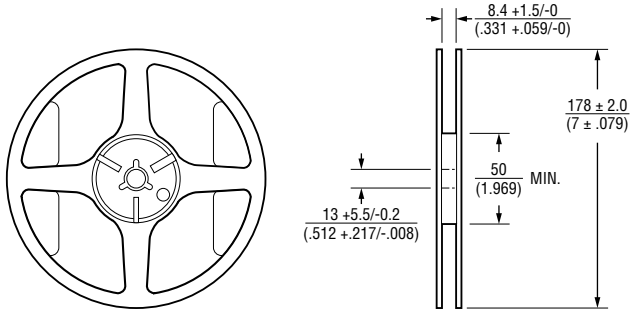


SRP2010TMA-2R2M

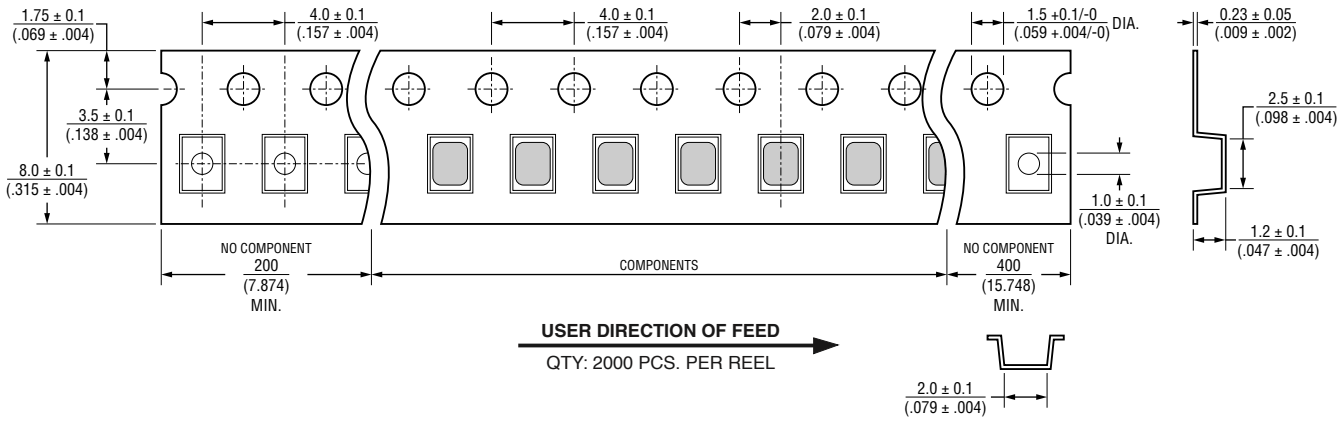


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Packaging Specifications



DIMENSIONS: MM / (INCHES)



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com
EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com
The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com
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REV. 03/24

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