

Features

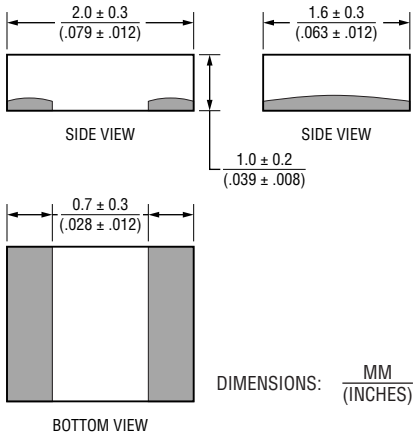
- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2012TMA Series - Shielded Power Inductors

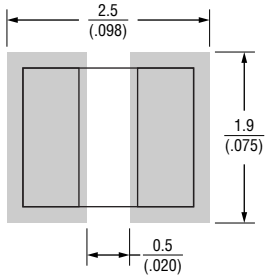
Electrical Specifications @ 25 °C

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. %						
SRP2012TMA-R22M	0.22	20	5	170	10	13	7.0	8.0
SRP2012TMA-R33M	0.33	20	5	125	15	18	5.9	7.0
SRP2012TMA-R47M	0.47	20	5	102	20	26	5.4	6.0
SRP2012TMA-R68M	0.68	20	10	80	30	36	4.2	5.0
SRP2012TMA-1R0M	1.0	20	10	70	40	48	3.7	4.5
SRP2012TMA-1R5M	1.5	20	10	52	70	84	2.9	3.1
SRP2012TMA-2R2M	2.2	20	15	40	105	126	2.5	2.7

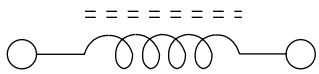
Product Dimensions



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

SRP2012TMA - R22M

Model
Value Code (see table)

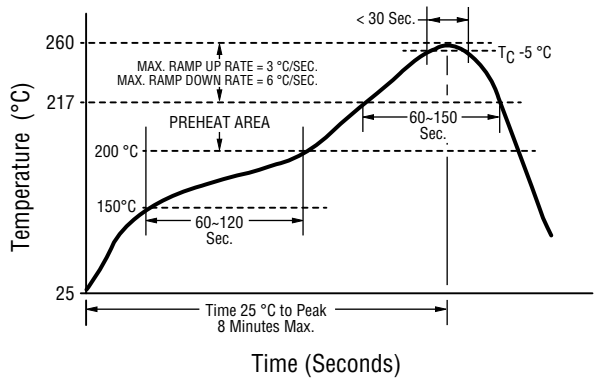
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* 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.

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Soldering Profile

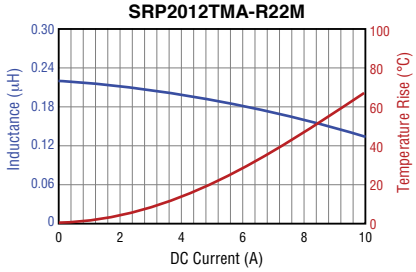


REFLOW TIMES: 3 TIMES MAX.

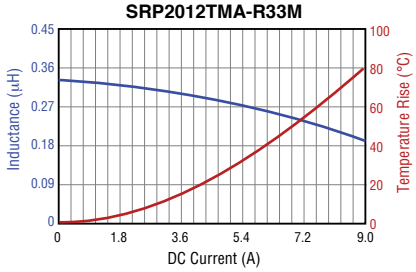
Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package 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.

L vs. I Charts

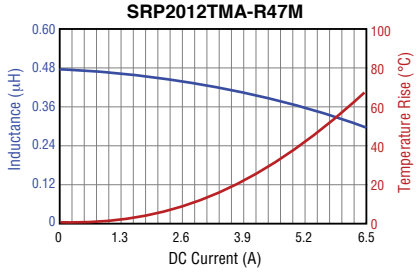
SRP2012TMA-R22M



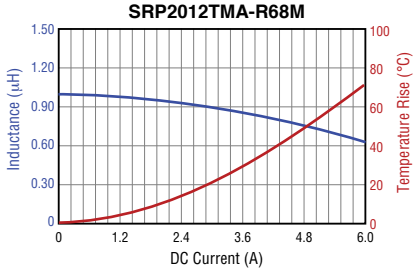
SRP2012TMA-R33M



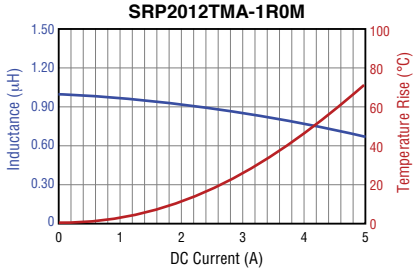
SRP2012TMA-R47M



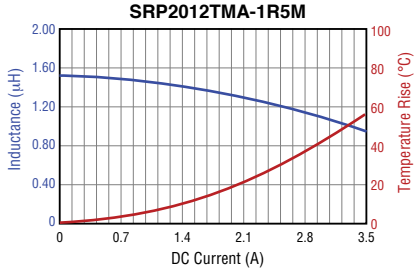
SRP2012TMA-R68M



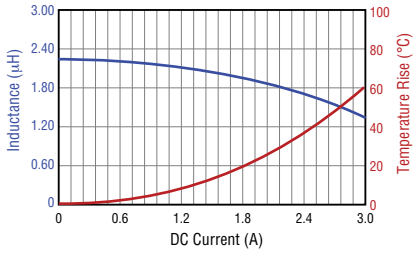
SRP2012TMA-1R0M



SRP2012TMA-1R5M



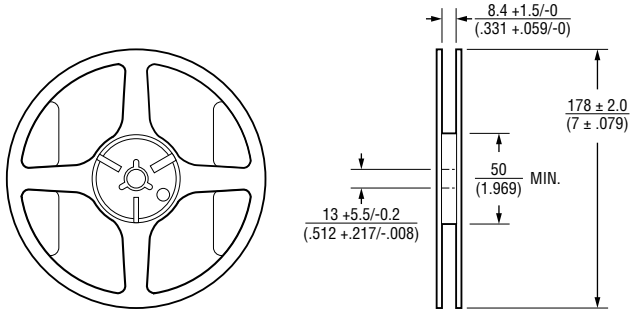
SRP2012TMA-2R2M



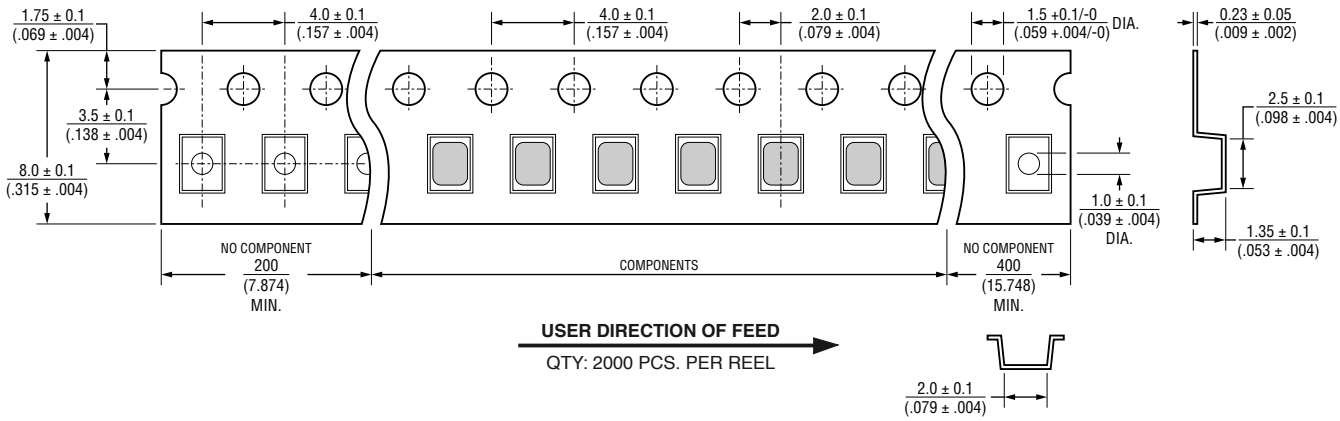
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Packaging Specifications



DIMENSIONS: MM / (INCHES)



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