



## Features

- Semi-shielded construction
- Inductance range: 0.33 to 10  $\mu$ H
- Rated current up to 2.1 A
- Low profile: 0.95 mm max.
- RoHS compliant\* and halogen free\*\*

## Applications

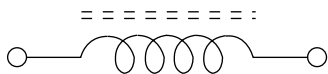
- DC/DC converters
- Power supplies
- Wearable devices
- HDDs, SSDs
- Smartphones
- LCD displays

# SRN2009T Series - Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 1 MHz / 0.1 V		Q (Typ.) @ 1 MHz	SRF (MHz) Typ.	DCR ( $\Omega$ ) $\pm 20$ %	Irms (A) Typ.	Isat (A) Typ.
	L ( $\mu$ H)	Tol. %					
SRN2009T-R33M	0.33	$\pm 20$	30	400	0.028	2.1	2.1
SRN2009T-R47M	0.47	$\pm 20$	25	300	0.038	2	2
SRN2009T-R68M	0.68	$\pm 20$	22	250	0.055	1.5	1.5
SRN2009T-1R0M	1.0	$\pm 20$	20	200	0.065	1.4	1.4
SRN2009T-1R5M	1.5	$\pm 20$	18	170	0.11	1.2	1.2
SRN2009T-2R2M	2.2	$\pm 20$	16	150	0.16	0.9	0.9
SRN2009T-3R3M	3.3	$\pm 20$	15	120	0.25	0.85	0.85
SRN2009T-4R7M	4.7	$\pm 20$	15	90	0.4	0.75	0.75
SRN2009T-6R8M	6.8	$\pm 20$	15	80	0.55	0.65	0.65
SRN2009T-100M	10	$\pm 20$	15	60	1	0.55	0.6

## Electrical Schematic

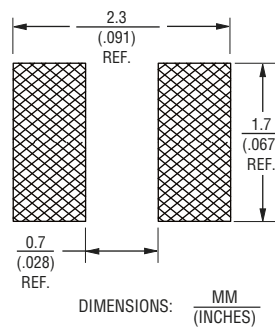


## How to Order

SRN2009T - R68M

Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

## Recommended Layout



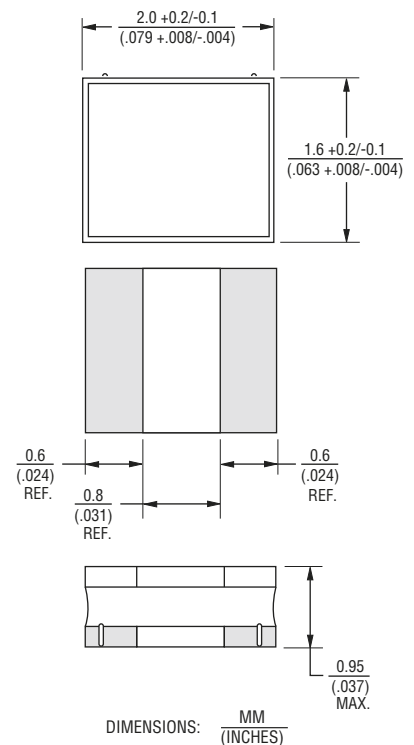
## General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature (Component) ..... -40 °C to +125 °C  
Temperature Rise ..... 40 °C at rated Irms  
Rated Current ..... Inductance drops 30 % at Isat  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

## Materials

Core ..... Ferrite  
Wire ..... Enamelled copper  
Terminal Finish ..... Sn  
Coating ..... Magnetic epoxy resin  
Packaging ..... 2000 pcs. per 7-inch reel

## Product Dimensions



**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://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.

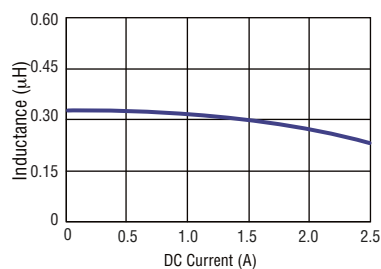
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# SRN2009T Series - Semi-shielded Power Inductors

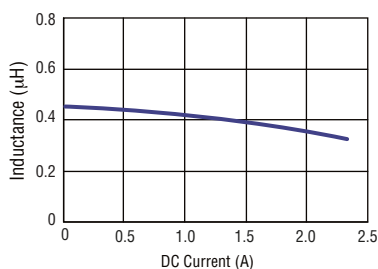
**BOURNS®**

## Inductance vs. Current

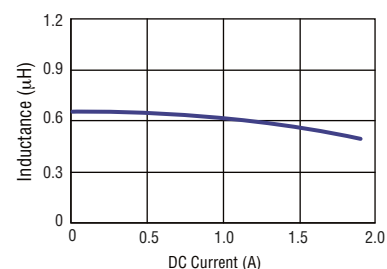
**SRN2009T-R33M**



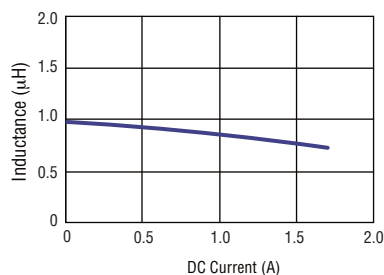
**SRN2009T-R47M**



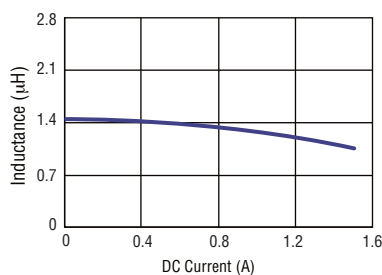
**SRN2009T-R68M**



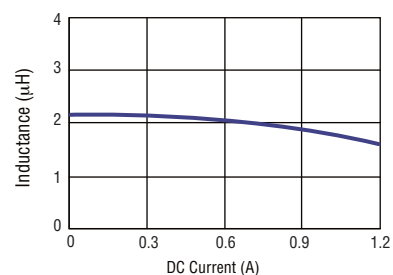
**SRN2009T-1R0M**



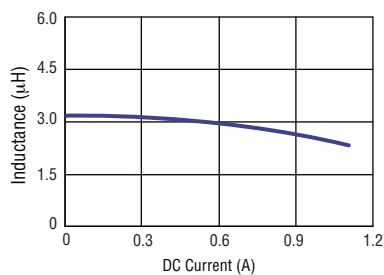
**SRN2009T-1R5M**



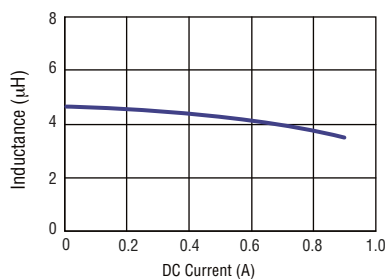
**SRN2009T-2R2M**



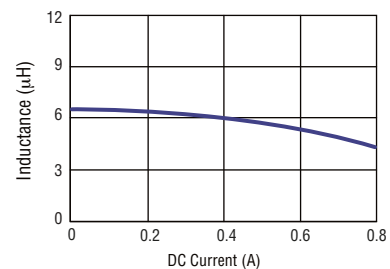
**SRN2009T-3R3M**



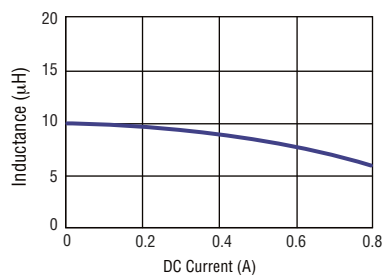
**SRN2009T-4R7M**



**SRN2009T-6R8M**



**SRN2009T-100M**



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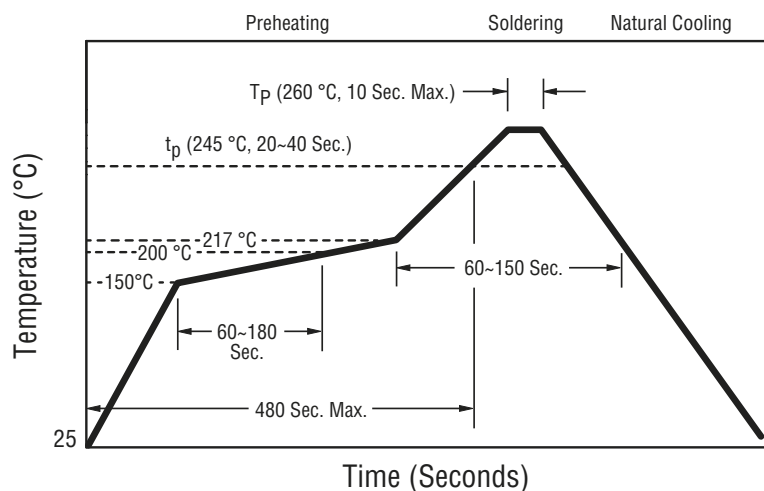
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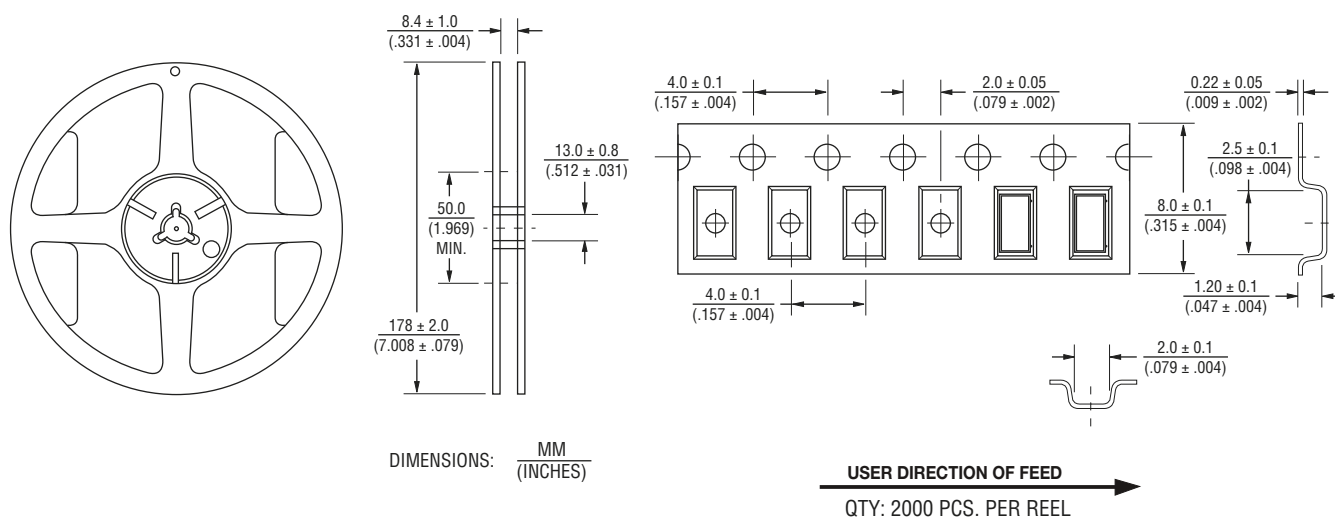
# SRN2009T Series - Semi-shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



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