



## Features

- Semi-shielded construction
- Miniature size
- Low profile, 1 mm
- Flat wire
- Low DCR
- RoHS compliant\* and halogen free\*\*

## Applications

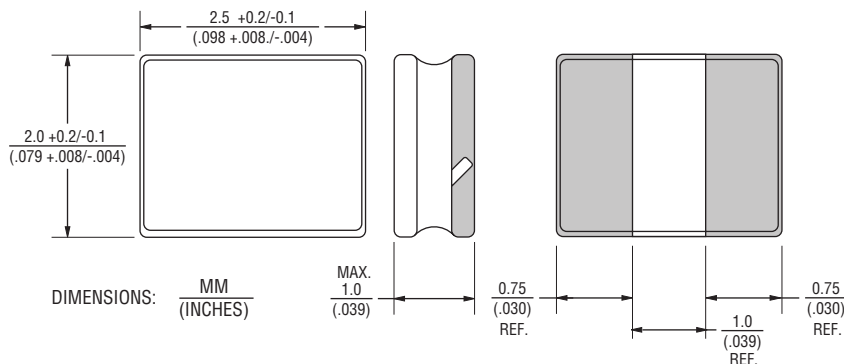
- DC/DC converters
- Notebook computers
- Digital video cameras
- HDDs
- Cell phones
- TV, LCD displays

## SRN2510F Series – Semi-Shielded Power Inductors

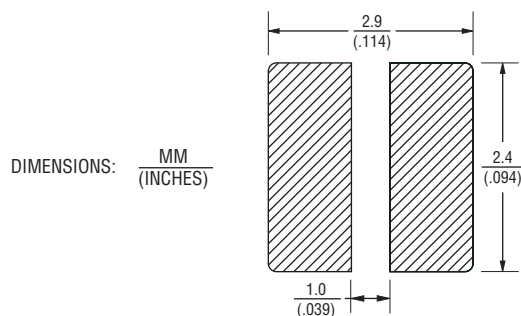
### Electrical Specifications @ 25 °C

| Bourns<br>Part Number | Inductance<br>@ 1 MHz / 1 V |        | SRF<br>(MHz)<br>Ref. | DCR<br>(Ω)<br>Typ. | DCR<br>(Ω)<br>Max. | I rms<br>(A)<br>Typ. | I sat<br>(A)<br>Typ. |
|-----------------------|-----------------------------|--------|----------------------|--------------------|--------------------|----------------------|----------------------|
|                       | L (μH)                      | Tol. % |                      |                    |                    |                      |                      |
| SRN2510F-R24M         | 0.24                        | ± 20 % | 180                  | 0.018              | 0.022              | 5.5                  | 9.5                  |
| SRN2510F-R33M         | 0.33                        | ± 20 % | 150                  | 0.023              | 0.028              | 5.3                  | 8.0                  |
| SRN2510F-R47M         | 0.47                        | ± 20 % | 120                  | 0.027              | 0.035              | 4.6                  | 7.0                  |
| SRN2510F-R68M         | 0.68                        | ± 20 % | 90                   | 0.032              | 0.040              | 4.2                  | 5.5                  |
| SRN2510F-1R0M         | 1.00                        | ± 20 % | 60                   | 0.044              | 0.053              | 3.5                  | 4.9                  |
| SRN2510F-1R5M         | 1.50                        | ± 20 % | 55                   | 0.062              | 0.074              | 3.2                  | 3.8                  |
| SRN2510F-2R2M         | 2.20                        | ± 20 % | 40                   | 0.078              | 0.093              | 2.6                  | 2.8                  |
| SRN2510F-3R3M         | 3.30                        | ± 20 % | 30                   | 0.125              | 0.150              | 2.0                  | 2.1                  |
| SRN2510F-4R7M         | 4.70                        | ± 20 % | 20                   | 0.180              | 0.216              | 1.7                  | 1.7                  |

### Product Dimensions



### Recommended Layout



### General Specifications

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

### Materials

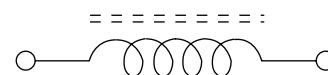
Core.....Metal alloy  
Wire.....Enameled copper  
Terminal Finish.....Sn  
Coating.....Magnetic epoxy resin  
Packaging.....2000 pcs. per 7-inch reel

### How to Order

SRN2510F - R33M

Model .....  
Value Code (see table) .....

### Schematic



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[www.bourns.com](http://www.bourns.com)



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

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

\*\*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.

Specifications are subject to change without notice.

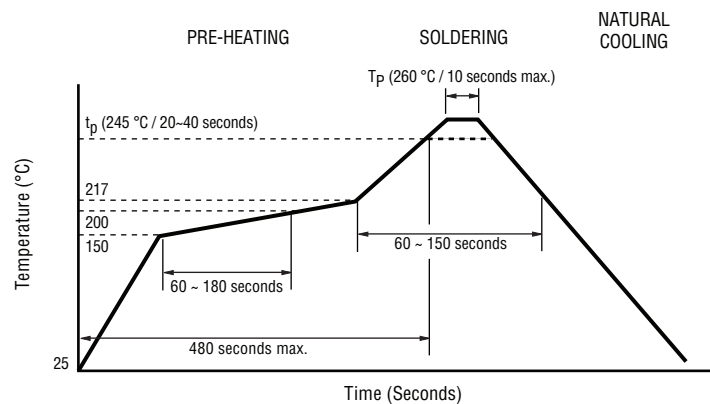
Users should verify actual device performance in their specific applications.

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# SRN2510F Series – Semi-Shielded Power Inductors

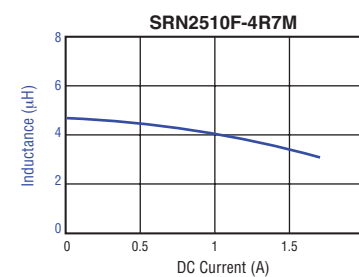
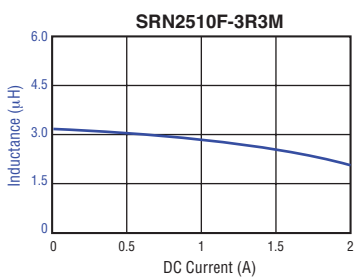
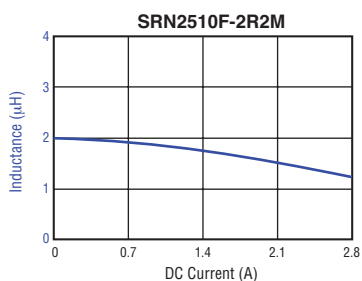
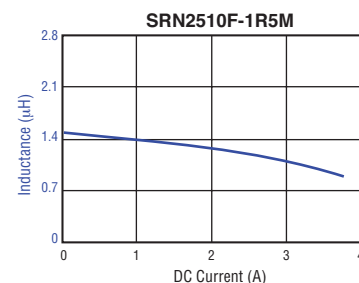
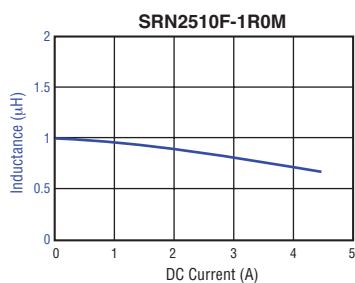
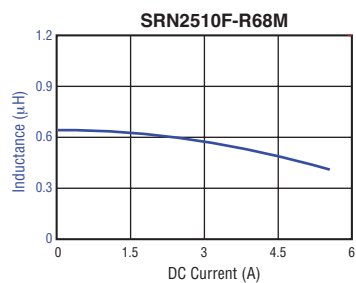
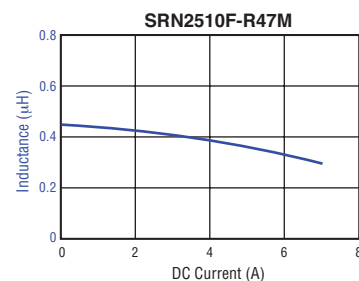
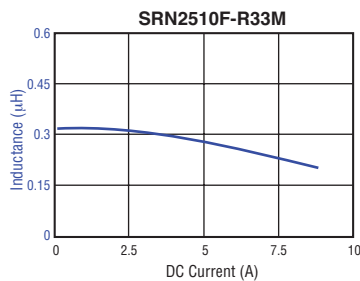
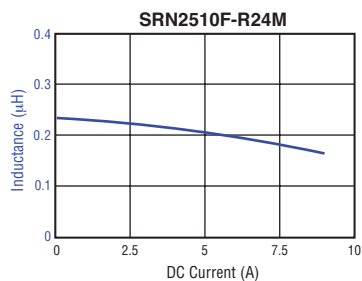
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## Soldering Profile



REFLOW TIMES: 3 MAX.

## L vs. I Charts



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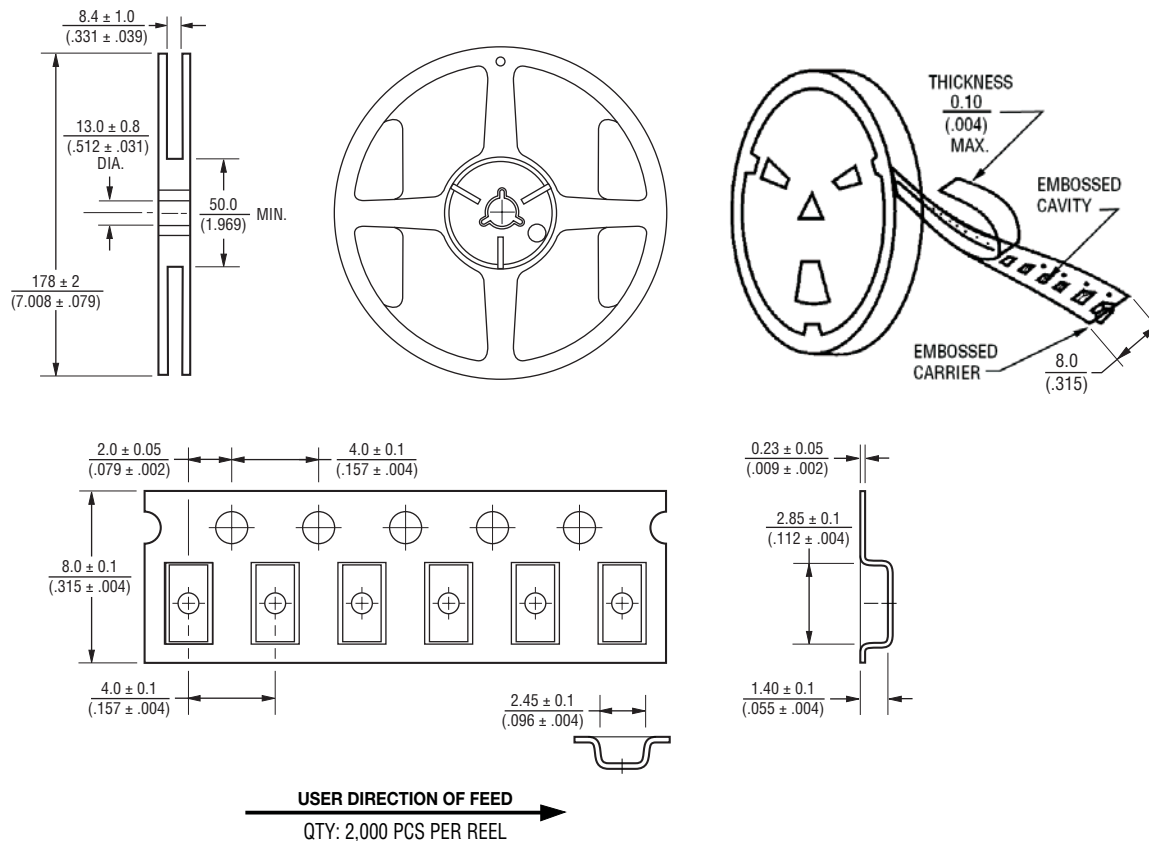
Users should verify actual device performance in their specific applications.

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# SRN2510F Series – Semi-Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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

REV. 12/18

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