



## Features

- Semi-shielded construction
- Miniature size
- Low profile - 1.8 mm max.
- Inductance range: 0.82 to 220  $\mu$ H
- High rated current - up to 4.0 A
- RoHS compliant\* and halogen free\*\*

## Applications

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

# SRN4018 Series - Semi-shielded Power Inductors

## Electrical Specifications @ 25 °C

| Bourns Part No. | Inductance<br>@ 100 KHz/1 V |        | Q<br>(Ref.) | Test<br>Freq.<br>(MHz) | SRF<br>(MHz)<br>Typ. | DCR<br>( $\Omega$ )<br>Max. | I <sub>rms</sub><br>(A) | I <sub>sat</sub><br>(A) |
|-----------------|-----------------------------|--------|-------------|------------------------|----------------------|-----------------------------|-------------------------|-------------------------|
|                 | L ( $\mu$ H)                | Tol. % |             |                        |                      |                             |                         |                         |
| SRN4018-R82Y    | 0.82                        | 30     | 9           | 7.96                   | 100                  | 0.019                       | 4.0                     | 4.7                     |
| SRN4018-1R0Y    | 1.0                         | 30     | 9           | 7.96                   | 90                   | 0.023                       | 3.7                     | 4.2                     |
| SRN4018-1R2Y    | 1.2                         | 30     | 9           | 7.96                   | 80                   | 0.025                       | 3.5                     | 4.0                     |
| SRN4018-1R5Y    | 1.5                         | 30     | 9           | 7.96                   | 70                   | 0.032                       | 3.1                     | 3.5                     |
| SRN4018-2R2M    | 2.2                         | 20     | 9           | 7.96                   | 60                   | 0.044                       | 2.9                     | 3.0                     |
| SRN4018-2R7M    | 2.7                         | 20     | 9           | 7.96                   | 52                   | 0.052                       | 2.3                     | 2.4                     |
| SRN4018-3R3M    | 3.3                         | 20     | 9           | 7.96                   | 45                   | 0.066                       | 2.2                     | 2.3                     |
| SRN4018-4R7M    | 4.7                         | 20     | 9           | 7.96                   | 35                   | 0.084                       | 1.9                     | 2.0                     |
| SRN4018-6R8M    | 6.8                         | 20     | 9           | 7.96                   | 30                   | 0.118                       | 1.5                     | 1.6                     |
| SRN4018-100M    | 10                          | 20     | 11          | 2.52                   | 25                   | 0.180                       | 1.3                     | 1.4                     |
| SRN4018-150M    | 15                          | 20     | 11          | 2.52                   | 18                   | 0.264                       | 1.0                     | 1.1                     |
| SRN4018-220M    | 22                          | 20     | 11          | 2.52                   | 15                   | 0.348                       | 0.9                     | 0.95                    |
| SRN4018-330M    | 33                          | 20     | 11          | 2.52                   | 12                   | 0.552                       | 0.7                     | 0.75                    |
| SRN4018-470M    | 47                          | 20     | 11          | 2.52                   | 10                   | 0.780                       | 0.6                     | 0.62                    |
| SRN4018-680M    | 68                          | 20     | 11          | 2.52                   | 8                    | 1.128                       | 0.5                     | 0.50                    |
| SRN4018-101M    | 100                         | 20     | 23          | 0.796                  | 6                    | 1.596                       | 0.42                    | 0.45                    |
| SRN4018-151M    | 150                         | 20     | 23          | 0.796                  | 5                    | 2.400                       | 0.32                    | 0.35                    |
| SRN4018-221M    | 220                         | 20     | 30          | 0.796                  | 3                    | 3.552                       | 0.28                    | 0.30                    |
| SRN4018-331M    | 330                         | 20     | 30          | 0.796                  | 6                    | 6.36                        | 0.2                     | 0.21                    |

## General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature (Component) ..... -40 °C to +125 °C  
Resistance to Solder Heat ..... +260 °C for 10 sec.  
Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
Rated Current ..... Inductance drops 30 % at I<sub>sat</sub>  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM) ..... N/A

## Materials

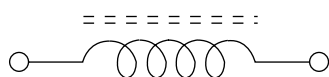
Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn/Ag/Cu  
Coating ..... Magnetic epoxy resin  
Packaging ..... 3000 pcs. per 13-inch reel

## How to Order

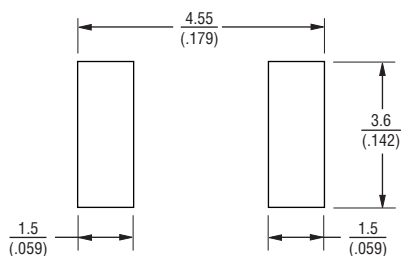
**SRN4018 - 100M**

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

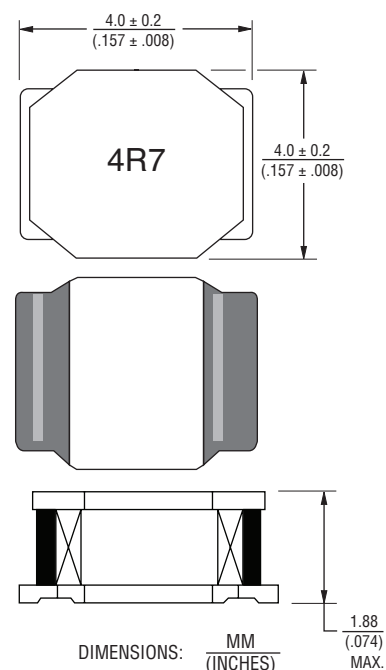
## Electrical Schematic



## Recommended Layout



## Product Dimensions



\* 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.

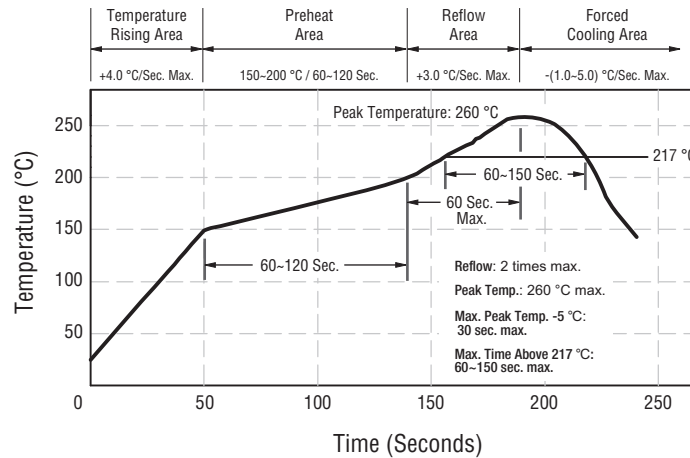
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

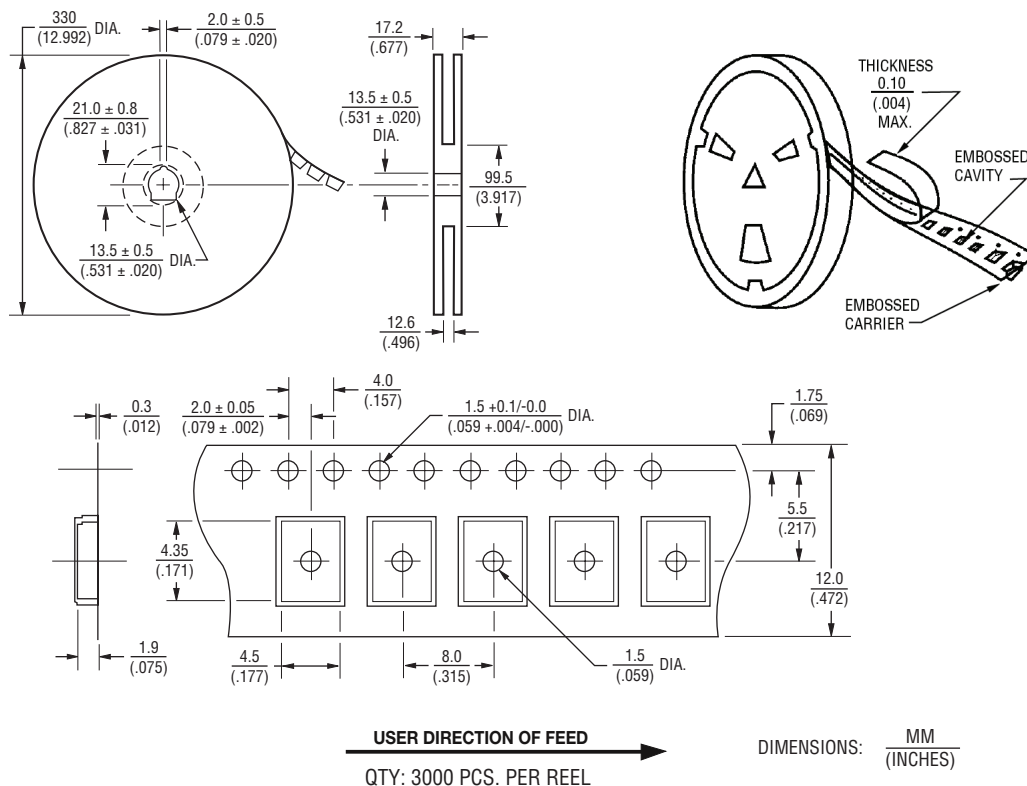
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**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 09/17

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