



## Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Flat wire
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

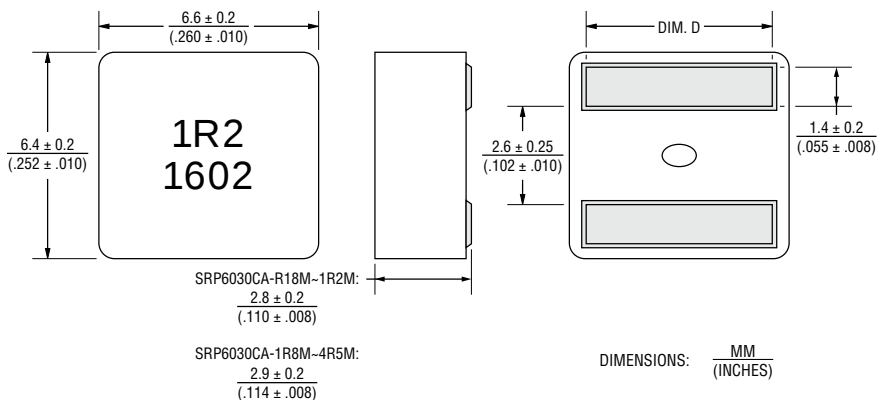
- Selected automotive applications:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

## SRP6030CA Series – Shielded Power Inductors

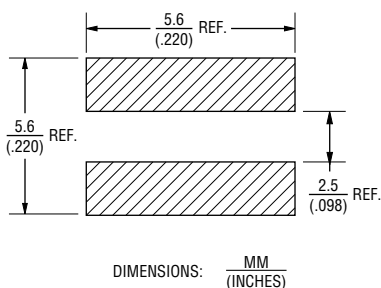
### Electrical Specifications @ 25 °C

| Bourns<br>Part Number | Inductance<br>@ 100 kHz / 0.1 V |        | SRF<br>(MHz)<br>Typ. | DCR<br>(mΩ)<br>Typ. | DCR<br>(mΩ)<br>Max. | I rms (A)<br>Typ.   |                     | I sat<br>(A)<br>Typ. | D Dim.<br>(mm)<br>± 0.3 mm |
|-----------------------|---------------------------------|--------|----------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------------|
|                       | L (μH)                          | Tol. % |                      |                     |                     | 20 °C<br>Temp. Rise | 40 °C<br>Temp. Rise |                      |                            |
| SRP6030CA-R18M        | 0.18                            | ± 20 % | 143                  | 1.6                 | 1.75                | 24                  | 32                  | 40                   | 5.3                        |
| SRP6030CA-R33M        | 0.33                            | ± 20 % | 78                   | 2.25                | 2.5                 | 20                  | 25                  | 32                   | 5.55                       |
| SRP6030CA-R56M        | 0.56                            | ± 20 % | 70                   | 3                   | 3.31                | 17                  | 22                  | 29                   | 5.3                        |
| SRP6030CA-1R0M        | 1.0                             | ± 20 % | 52                   | 5.5                 | 6.05                | 13                  | 18                  | 23                   | 5.2                        |
| SRP6030CA-1R2M        | 1.2                             | ± 20 % | 47                   | 6.7                 | 7.4                 | 12                  | 16                  | 22                   | 5.15                       |
| SRP6030CA-1R8M        | 1.8                             | ± 20 % | 33                   | 9.2                 | 10.2                | 10                  | 14                  | 18.2                 | 5.1                        |
| SRP6030CA-2R2M        | 2.2                             | ± 20 % | 29                   | 11                  | 12.2                | 7                   | 10                  | 15.9                 | 5.05                       |
| SRP6030CA-3R3M        | 3.3                             | ± 20 % | 25                   | 18.8                | 20.8                | 6                   | 8                   | 12.2                 | 5                          |
| SRP6030CA-4R5M        | 4.5                             | ± 20 % | 20                   | 23                  | 25.3                | 5                   | 7                   | 10                   | 5                          |

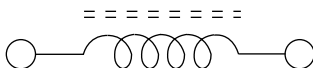
### Product Dimensions



### Recommended Layout



### Schematic



### How to Order

SRP6030CA - 1R2M

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

### Additional Information

Click these links for more information:



### General Specifications

Operating Temperature ..... -55 °C to +155 °C  
(Temperature rise included)

Storage Temperature (Component) ..... -55 °C to +155 °C

Rated Current..... Inductance drops  
30 % at Isat

Temperature Rise .....20 or 40 °C  
at rated Irms<sup>1</sup>

MSL .....1

ESD Classification (HBM)..... N/A

Note 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 .....Enamelled copper

Terminal Finish ..... Sn

Packaging..... 1000 pcs. per 13-inch reel



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

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

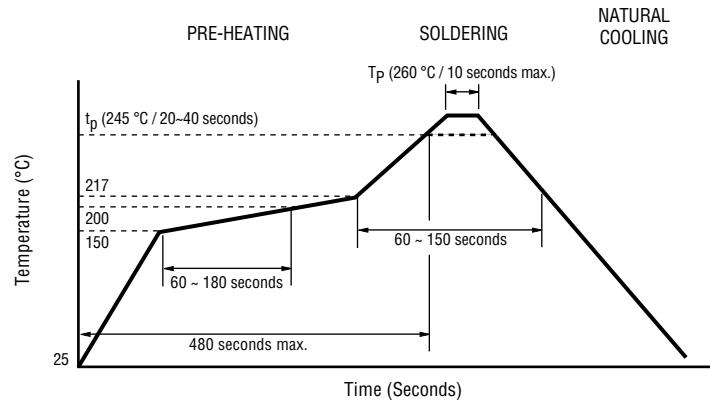
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP6030CA Series - Shielded Power Inductors

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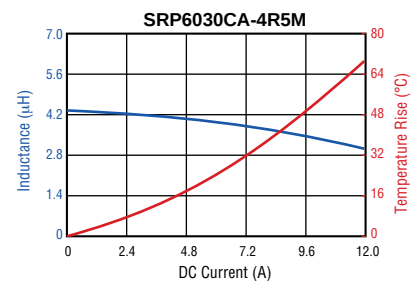
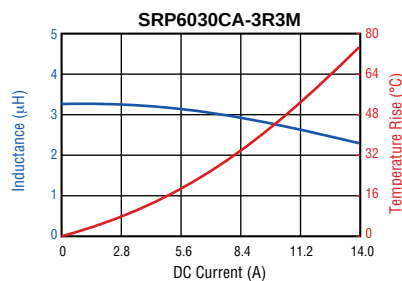
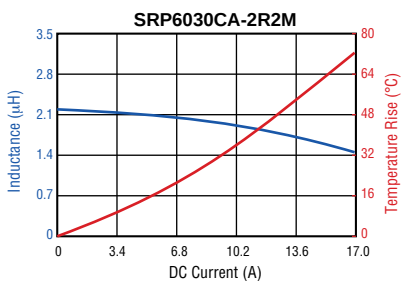
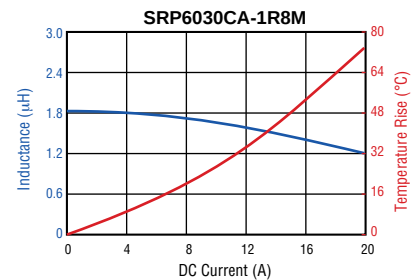
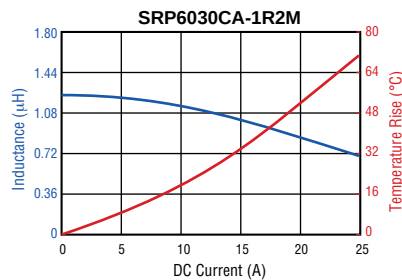
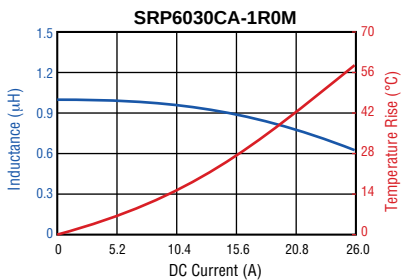
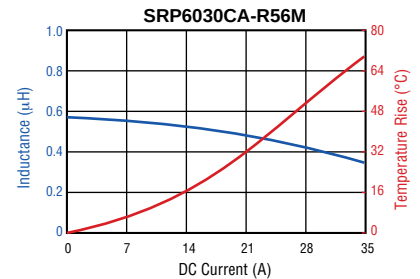
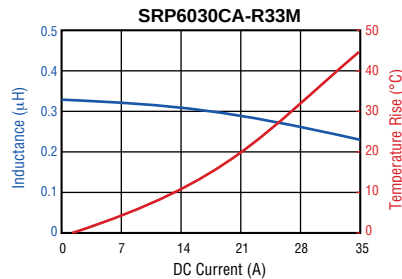
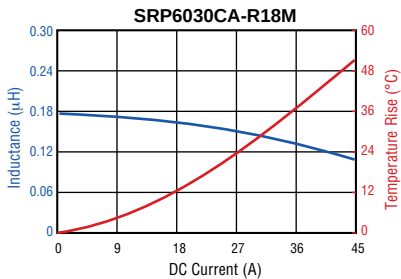
## Soldering Profile



REFLOW TIMES: 3 MAX.

NOTE: 0.15 mm thick solder paste recommended.

## L vs. I Charts



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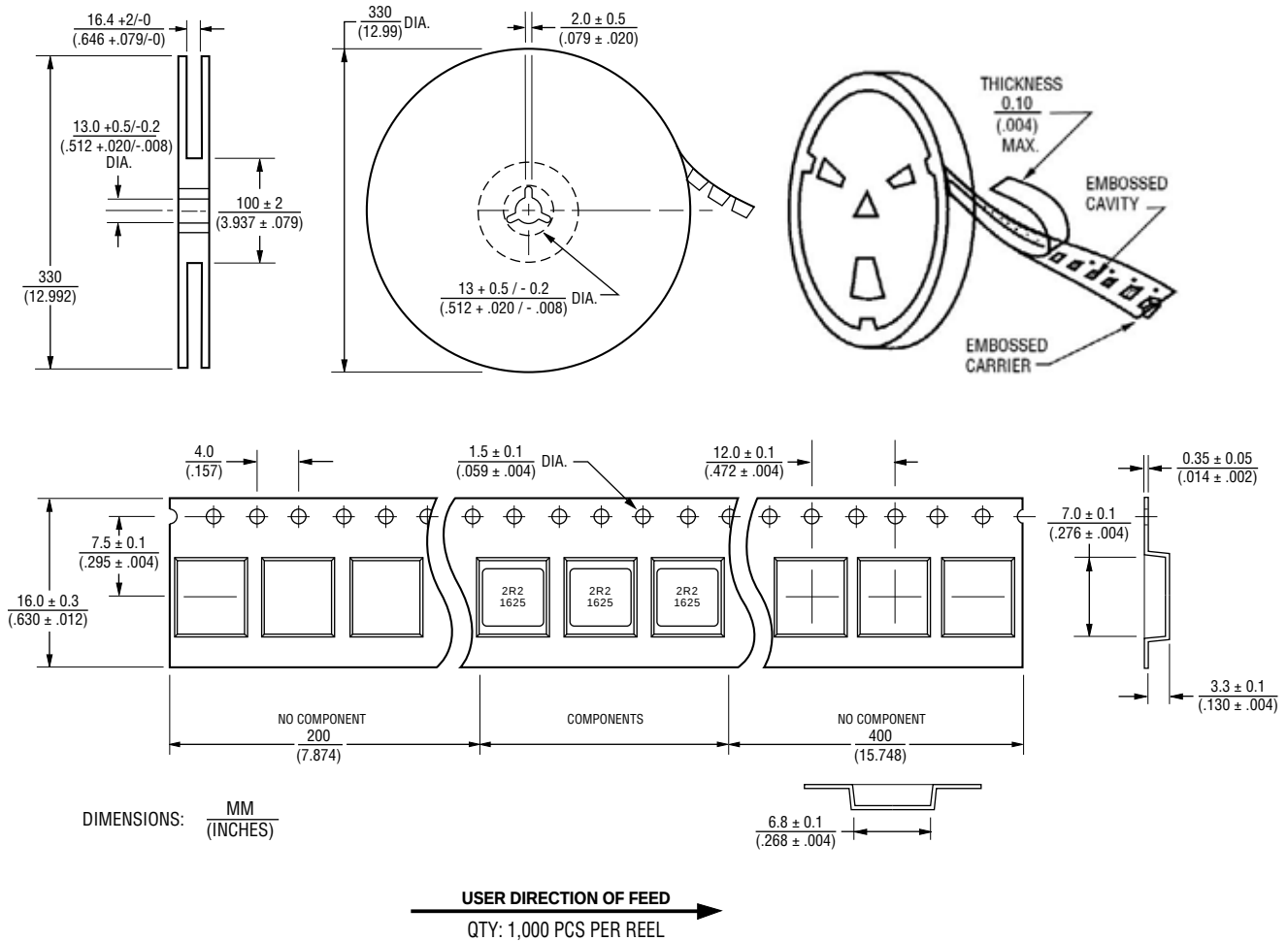
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# SRP6030CA Series - Shielded Power Inductors

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## Packaging Specifications



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Americas: Tel: +1 951-781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)

Mexico: Tel: +52-614-478-0400 • Email: [mexicus@bourns.com](mailto:mexicus@bourns.com)

Asia: Tel: +886-2-2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)

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