

## Features

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

## Applications

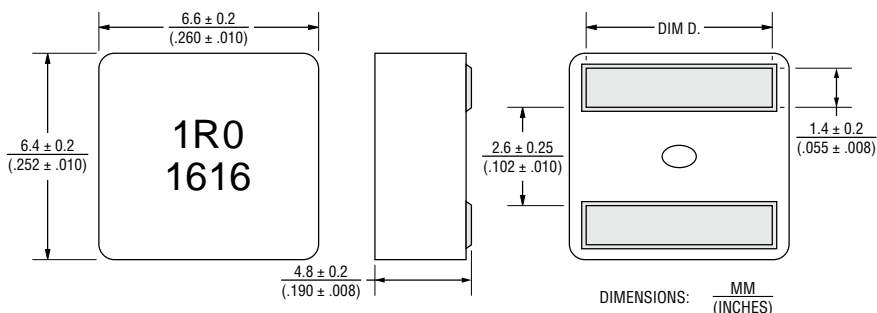
- Selected automotive applications:
  - Driver assistant
  - Infotainment
  - Lighting
- DC/DC converters
- Power supplies

## SRP6050CA Series – Shielded Power Inductors

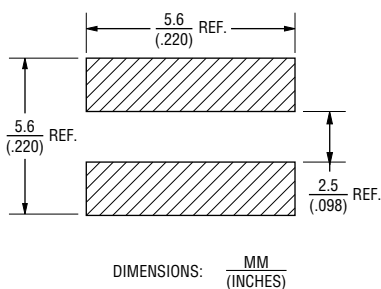
### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 0.1 V		SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I rms (A) Typ.		I sat (A) Typ.	D Dim. (mm) ± 0.3 mm
	L (μH)	Tol. %				20 °C Temp. Rise	40 °C Temp. Rise		
SRP6050CA-1R0M	1.0	± 20 %	50	4.1	4.52	15	20	23.0	5.3
SRP6050CA-1R2M	1.2	± 20 %	43	5.3	5.83	14	18	22.0	5.3
SRP6050CA-1R5M	1.5	± 20 %	40	5.7	6.3	13	17	19.5	5.3
SRP6050CA-1R8M	1.8	± 20 %	33	6.4	7.1	12	16	18.5	5.3
SRP6050CA-2R2M	2.2	± 20 %	30	7.7	8.5	10	13	16.0	5.2
SRP6050CA-3R3M	3.3	± 20 %	25	11.2	12.5	8.5	11	12.5	5.2
SRP6050CA-4R3M	4.3	± 20 %	23	15.1	16.2	7.0	9.0	11.0	5.2
SRP6050CA-4R7M	4.7	± 20 %	22	16.7	18.4	6.5	8.5	10.5	5.2

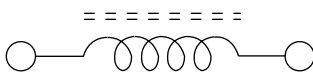
### Product Dimensions



### Recommended Layout



### Schematic



### How to Order

**SRP6050CA - 1R0M**

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 ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging ..... 800 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.

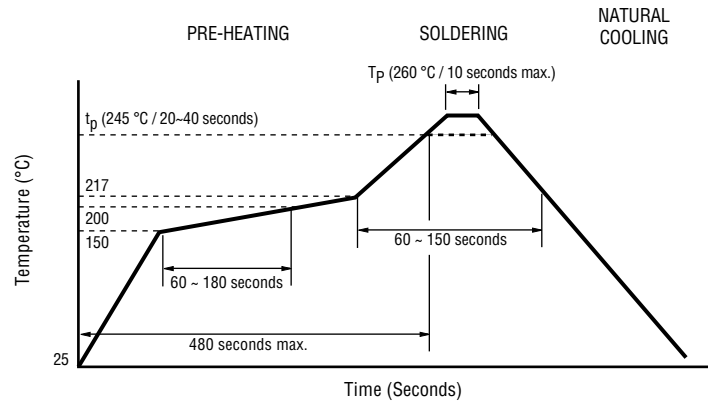
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP6050CA Series - Shielded Power Inductors

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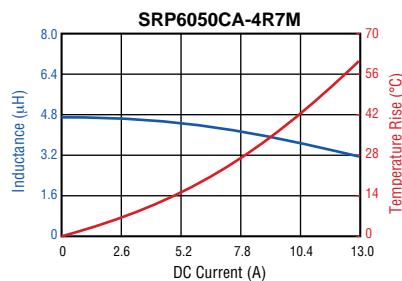
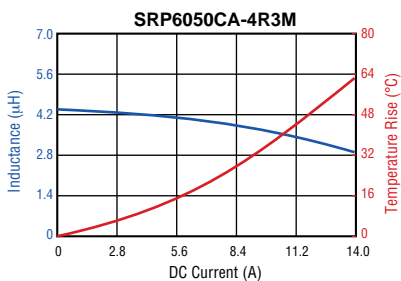
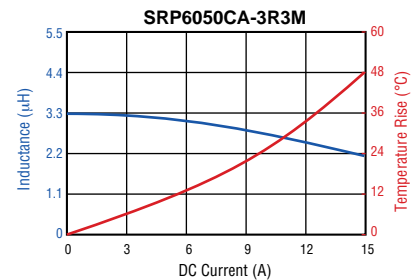
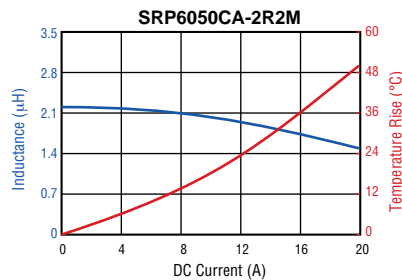
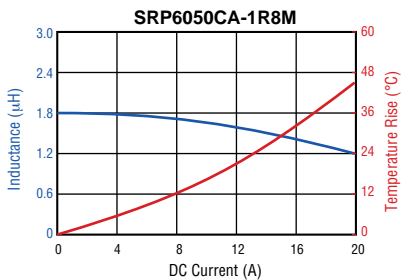
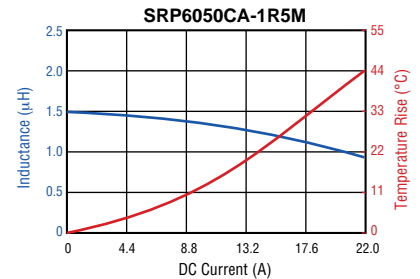
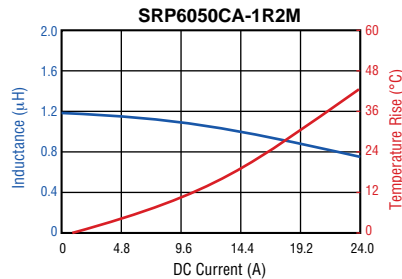
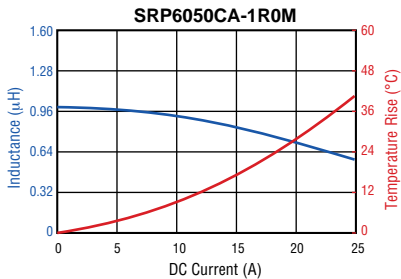
## Soldering Profile



REFLOW TIMES: 3 MAX.

NOTE: 0.15 mm thick solder paste recommended.

## L vs. I Charts



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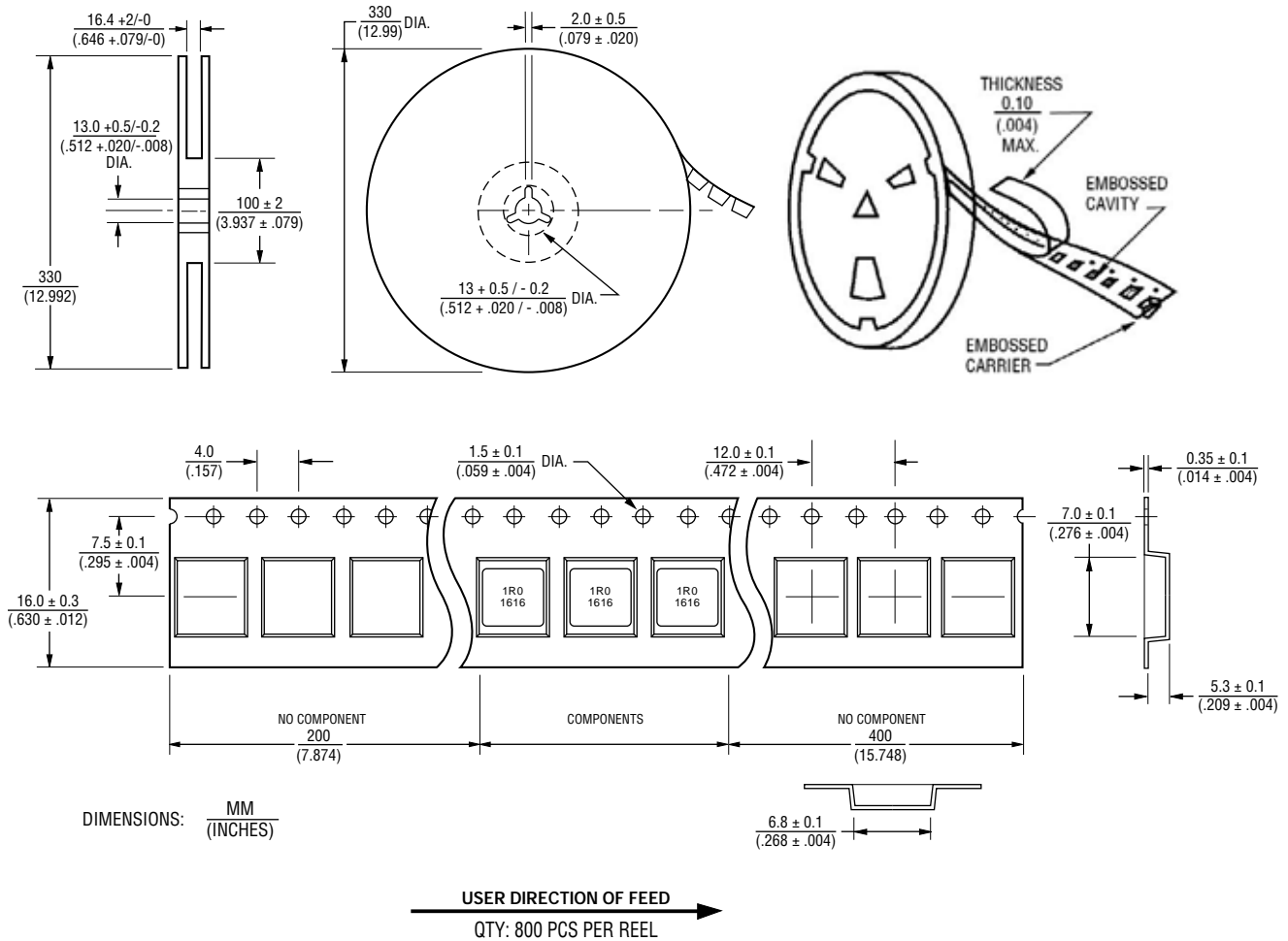
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# SRP6050CA Series - Shielded Power Inductors

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## Packaging Specifications



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

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