

Features

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

Applications

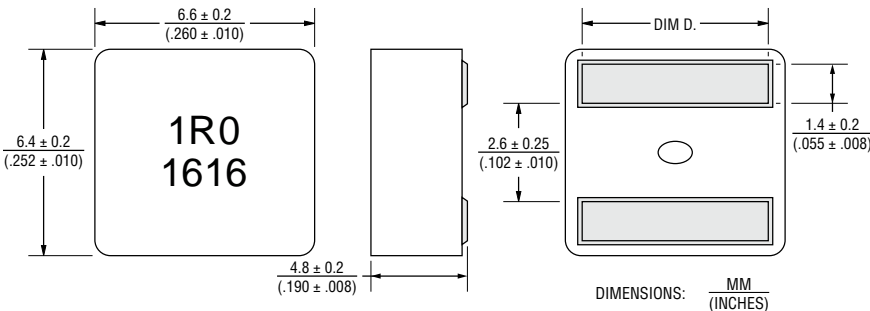
- Selected automotive applications:
 - Driver assistant
 - Infotainment
 - Lighting
- DC/DC converters
- Power supplies

SRP6050CA Series – Shielded Power Inductors

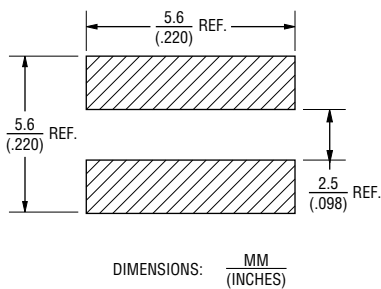
Electrical Specifications @ 25 °C

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-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

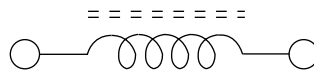
Product Dimensions



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 Irms¹

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

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

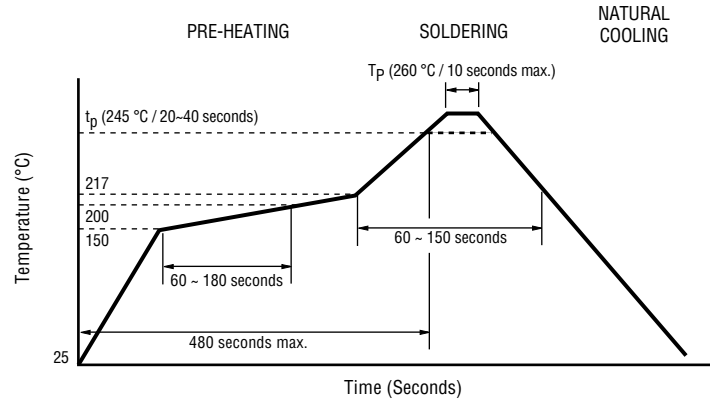
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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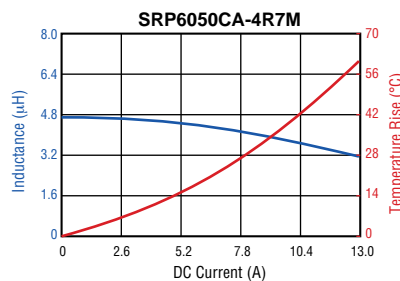
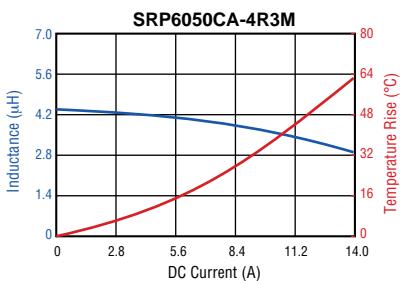
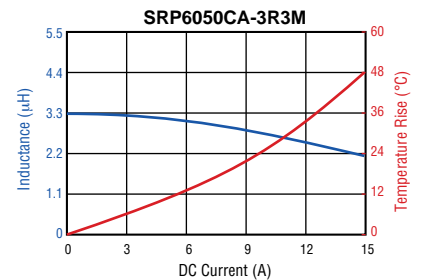
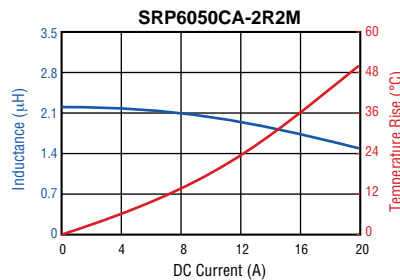
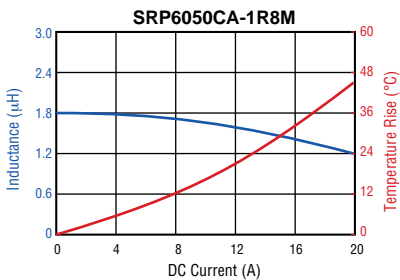
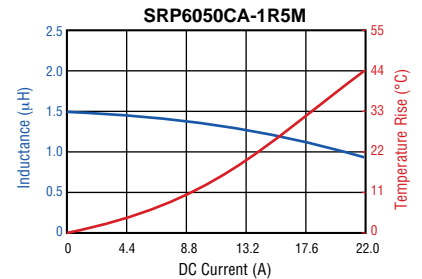
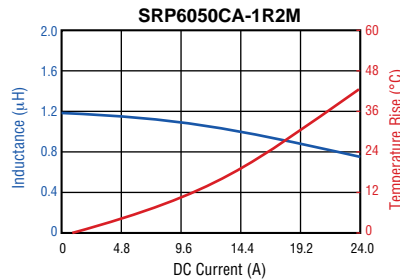
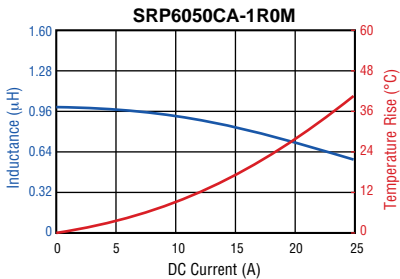
Soldering Profile



REFLOW TIMES: 3 MAX.

NOTE: 0.15 mm thick solder paste recommended.

L vs. I Charts



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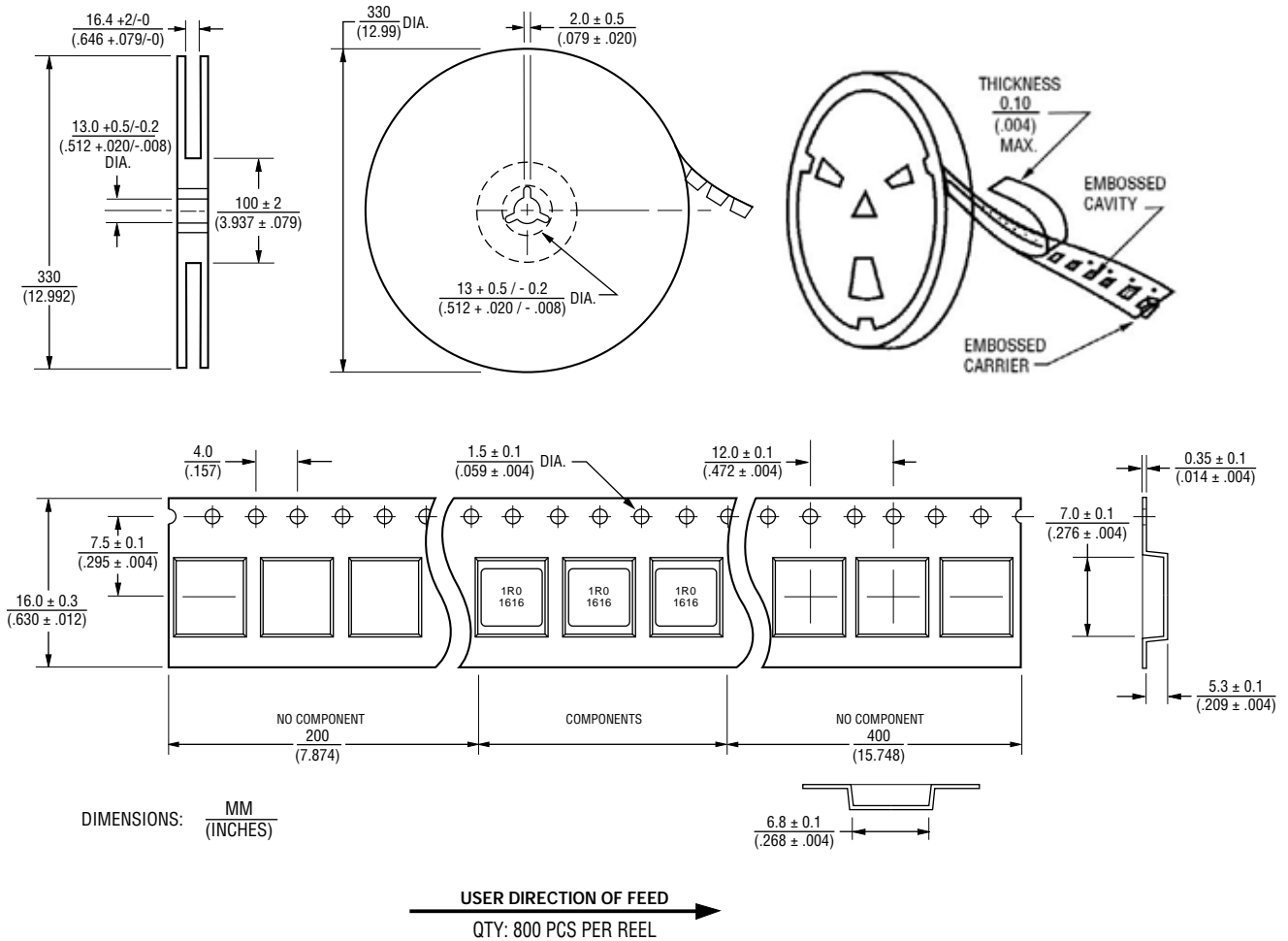
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SRP6050CA Series - Shielded Power Inductors

BOURNS®

Packaging Specifications



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REV. 06/24

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