

Features

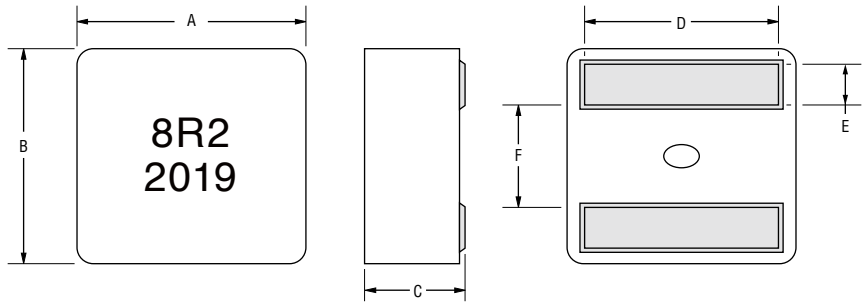
- Shielded construction
- Metal alloy powder core
- High saturation current
- Flat wire
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP5050FA 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.
	L (µH)	Tol. %				20 °C Temp. Rise	40 °C Temp. Rise	
SRP5050FA-5R6M	5.60	± 20 %	20	22.0	24.2	5.3	7.2	8.6
SRP5050FA-6R8M	6.80	± 20 %	18	26.0	28.6	4.8	6.4	7.8
SRP5050FA-8R2M	8.20	± 20 %	15	29.5	32.5	4.6	6.1	7.2
SRP5050FA-100M1	10	± 20 %	10	39.0	43	3.8	5	6.5
NEW! SRP5050FA-150M1	15	± 20 %	9	60.0	66	3	4	5.5
SRP5050FA-220M1	22	± 20 %	8	90.6	99.65	2.5	3.4	5

Product Dimensions



Bourns Part Number	Dimensions					
	A	B	C	D	E	F
SRP5050FA-xxxM	5.5 ± 0.2 (.217 ± .008)	5.3 ± 0.2 (.209 ± .008)	4.8 ± 0.2 (.189 ± .008)	4.3 ± 0.3 (.169 ± .012)	1.1 ± 0.2 (.043 ± .008)	2.3 ± 0.25 (.091 ± .010)
SRP5050FA-xxxM1	6.0 ± 0.2 (.236 ± .008)	5.7 ± 0.2 (.224 ± .008)				

DIMENSIONS: MM / (INCHES)

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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.

Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

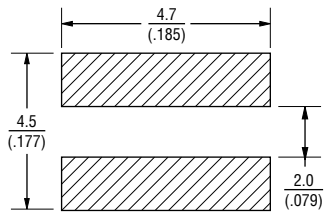
Operating Temperature .....-55 °C to +155 °C (Temperature rise included)
Storage Temperature (Component) .....-55 °C to +155 °C
Rated Current ..... Inductance drops 30 % at Isat
Temperature Rise .....20 or 40 °C at rated Irms[1]
MSL 1
ESD Classification (HBM)..... N/A

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

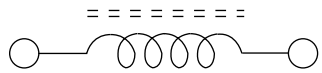
Core.....Metal alloy powder
Wire ..... Enameled copper
Terminal Finish ..... Sn
Packaging.....1500 pcs. per 13-inch reel

Recommended Layout



DIMENSIONS: MM / (INCHES)

Schematic



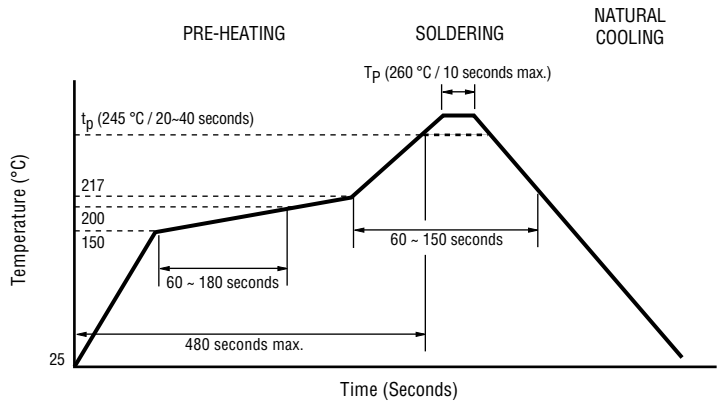
How to Order

SRP5050FA - 8R2M

Model
Value Code (see table)

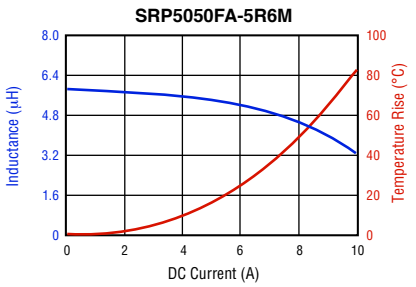
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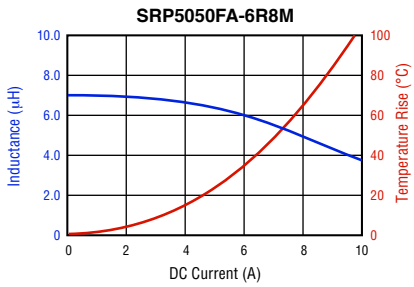
Soldering Profile

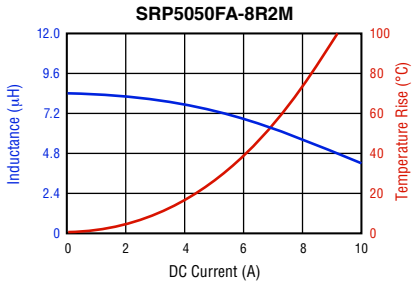


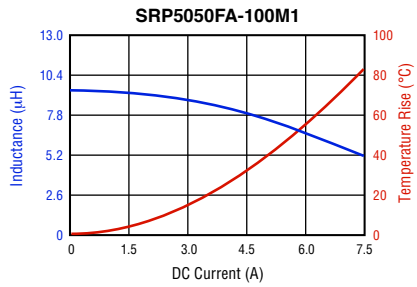
REFLOW TIMES: 3 MAX.

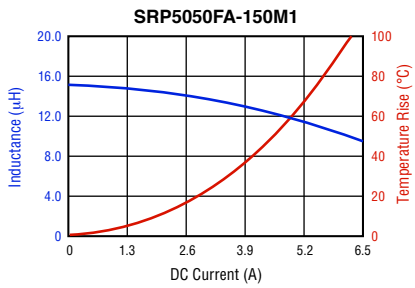
L vs. I Charts

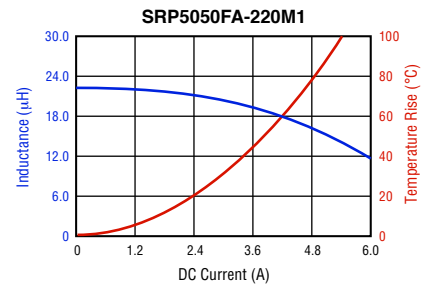








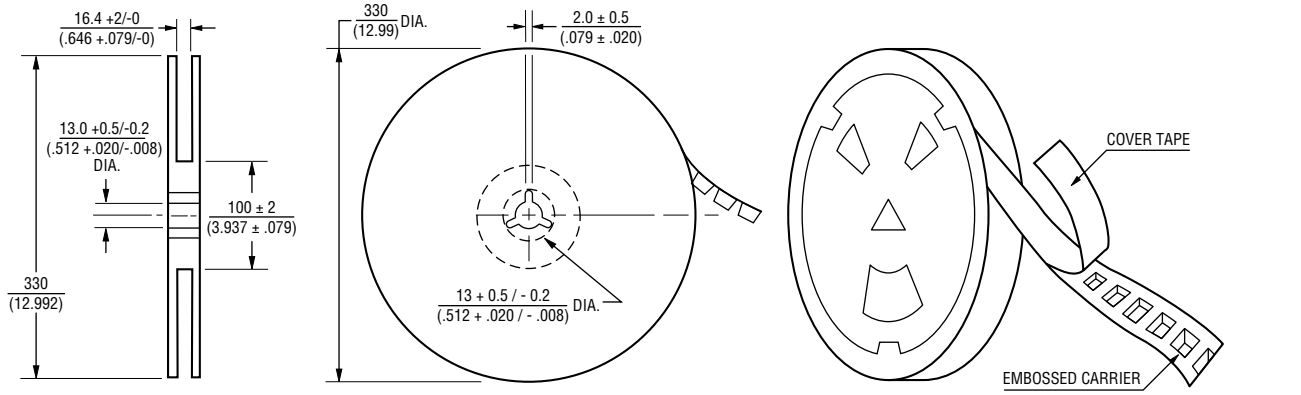




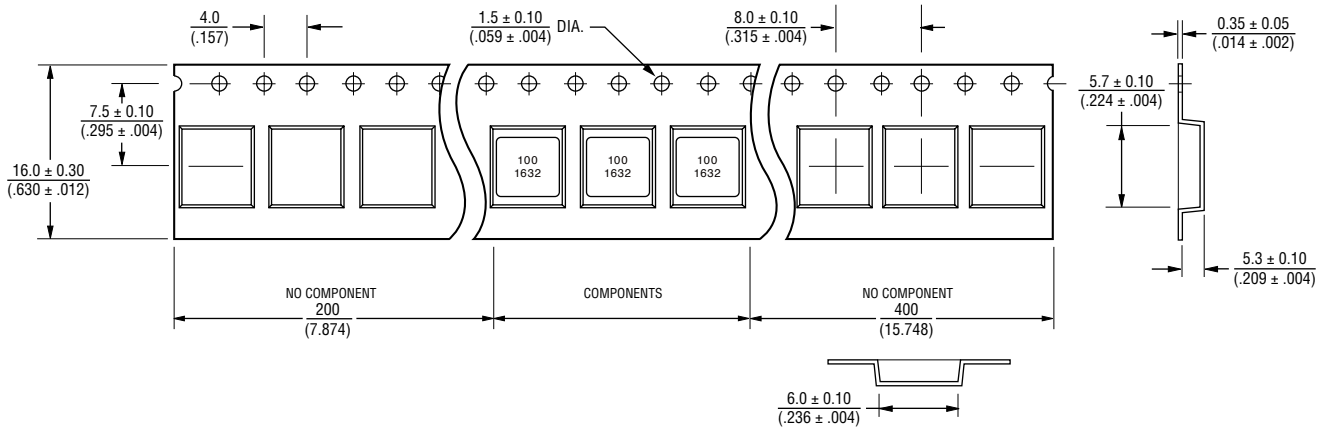
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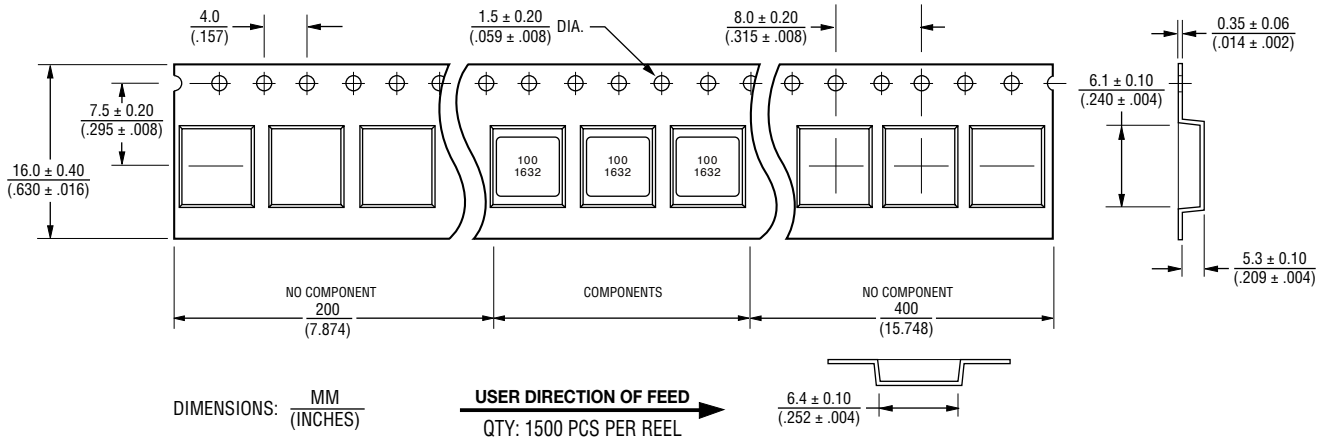
Packaging Specifications



SRP5050FA-xxxM Models:



SRP5050FA-xxxM1 Models:



REV. 04/22

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