

Features

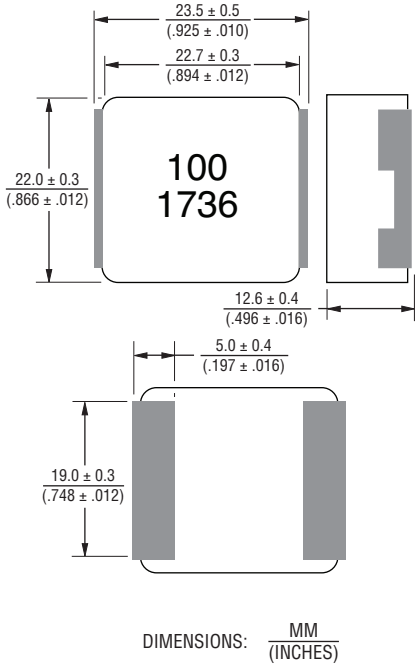
- Shielded construction
- Metal alloy powder core
- High saturation current
- Inductance range 1 to 100 µH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

SRP2313AA Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 kHz / 1 V		Q (Min.) @100 kHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.	Terminal Type
	L (µH)	Tol. (%)							
SRP2313AA-1R0M	1.0	20	60	23	0.8	0.95	70	60	Lead Frame
SRP2313AA-1R5M	1.5	20	60	21	1.0	1.15	62	52	
SRP2313AA-2R2M	2.2	20	60	19	1.05	1.25	58	48	
SRP2313AA-3R3M	3.3	20	60	15	1.5	1.75	49	41	
SRP2313AA-4R7M	4.7	20	40	11	1.9	2.2	47	38	
SRP2313AA-6R8M	6.8	20	40	9	2.7	3.1	40	36	
SRP2313AA-100M	10	20	40	7	3.8	4.15	33	28	
SRP2313AA-220M	22	20	30	5	9.2	11	22	15	
SRP2313AA-230M	23	20	30	5	9.2	11	22	15	
SRP2313AA-330M	33	20	30	4	13.5	15.4	19	12	
SRP2313AA-470M	47	20	20	3.5	17.3	20.8	17	12	
SRP2313AA-680M	68	20	20	3	26.2	29.5	14	12	
SRP2313AA-101M	100	20	20	2	36.0	40.0	11	9	

Product Dimensions



DIMENSIONS: MM / (INCHES)

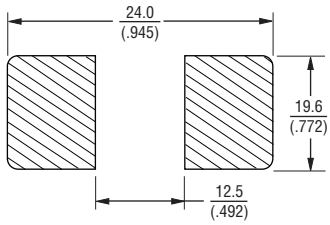
How to Order

SRP2313AA - 100M

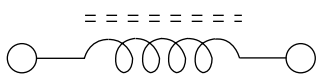
Model

Value Code (see table)

Recommended Layout



Electrical Schematic



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 ...40 °C at rated Irms[1]
Moisture Sensitivity Level.....1
ESD Classification (HBM)..... N/A

[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..... 80 pcs. per 13-inch reel

BOURNS®

Asia-Pacific:
Tel: +886-2 2562-4117
Email: asiacus@bourns.com

Europe:
Tel: +36 88 885 877
Email: eurocus@bourns.com

The Americas:
Tel: +1-951 781-5500
Email: americus@bourns.com

www.bourns.com

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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

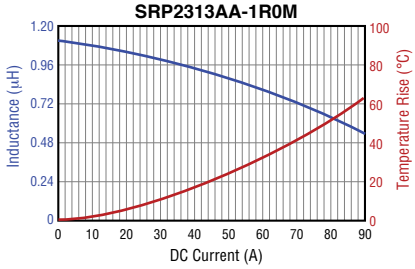
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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Users should verify actual device performance in their specific applications.
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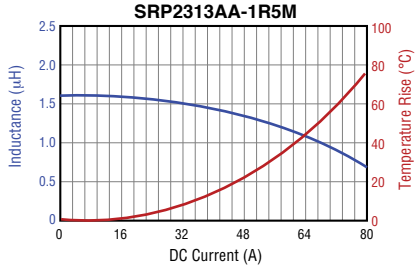
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L vs. I Charts

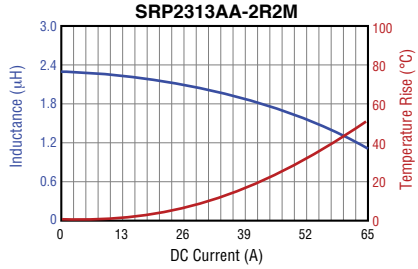
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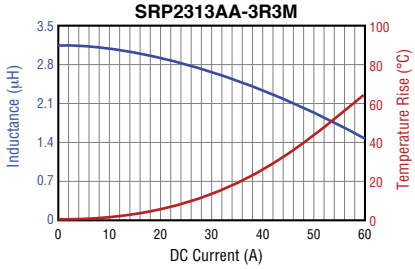
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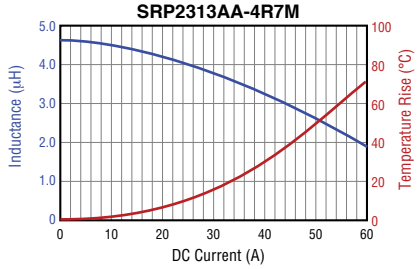
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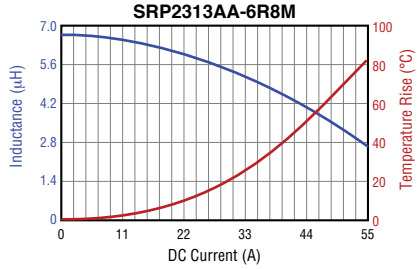
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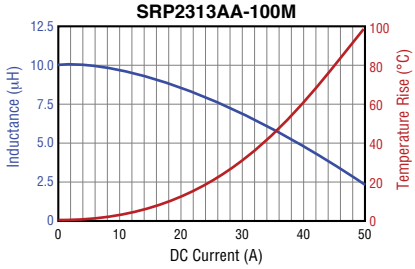
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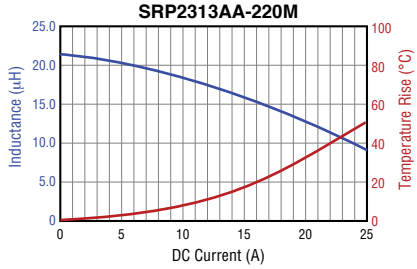
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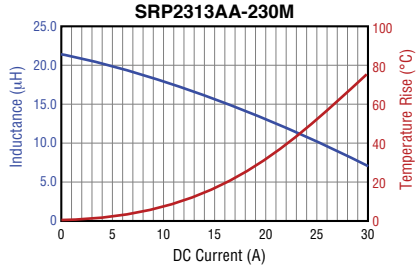
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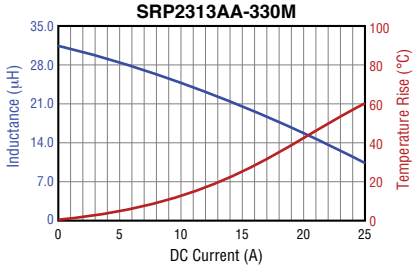
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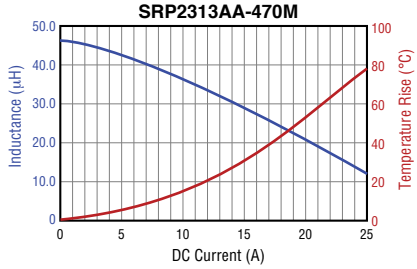
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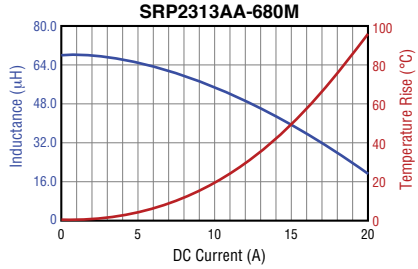
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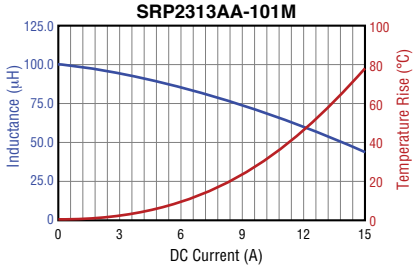
SRP2313AA-470M



SRP2313AA-680M



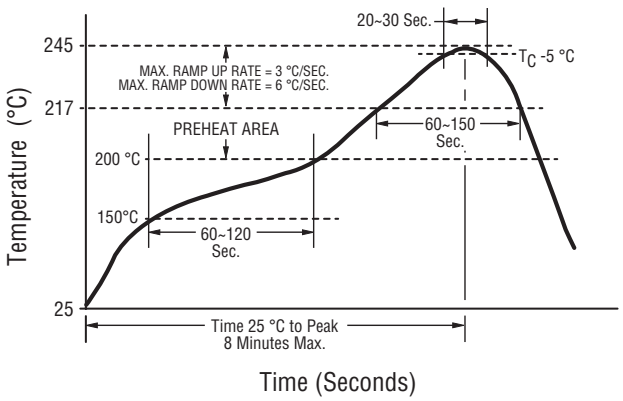
SRP2313AA-101M



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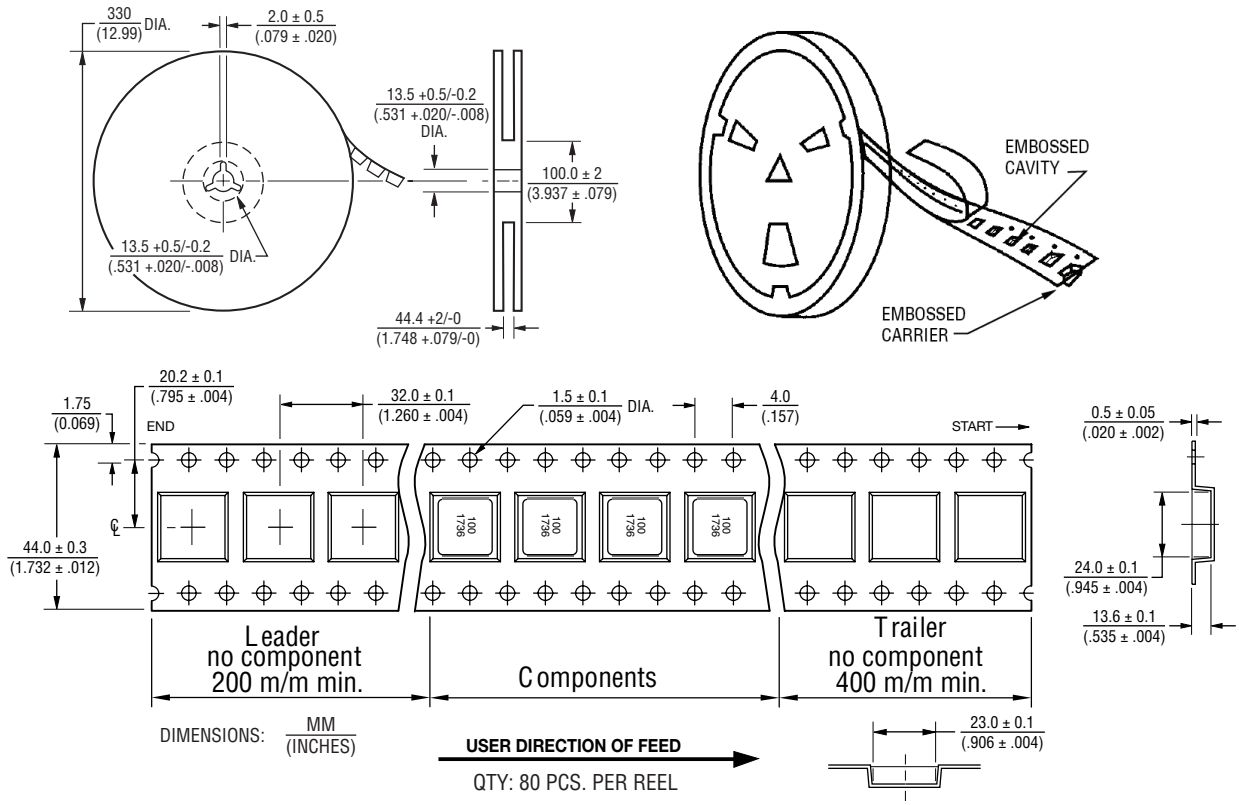
Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Peak package body temperature (T_p)	245 °C
Time within 5 °C of Actual Peak Temperature (t_p)	20-30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Packaging Specifications



REV. 08/23

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