



THE DATASHEET OF SRP1038A-6R8M





Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.20 to 47 μ H
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

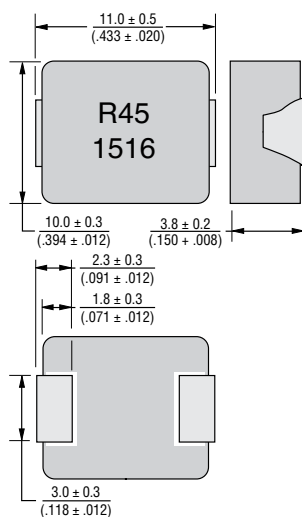
SRP1038A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

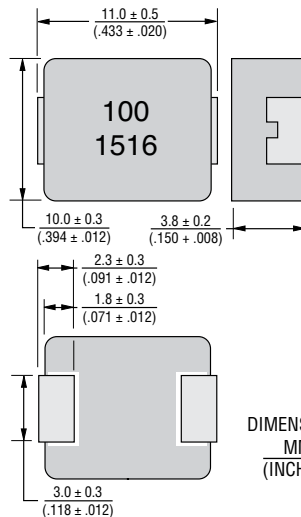
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @100 KHz / 1 V	SRF (MHz) Typ.	DCR (m Ω) Typ.	DCR (m Ω) Max.	I _{rms} (A)	Isat (A)	Terminal Type
	L (μ H)	Tol. (%)							
SRP1038A-R20M	0.20	20	10	155	0.66	0.95	35	70	Non-Lead Frame
SRP1038A-R22M	0.22	20	10	155	0.8	1	35	60	
SRP1038A-R27M	0.27	20	10	120	0.82	1	33	60	
SRP1038A-R33M	0.33	20	15	108	1	1.2	31	60	
SRP1038A-R36M	0.36	20	15	105	1.05	1.2	31	60	
SRP1038A-R39M	0.39	20	15	100	1.1	1.3	30	60	
SRP1038A-R45M	0.45	20	15	75	1.3	1.5	29	45	
SRP1038A-R56M	0.56	20	15	70	1.6	1.8	25	40	Lead Frame
SRP1038A-1R0M	1.0	20	20	47	3	3.3	18	36	
SRP1038A-1R2M	1.2	20	20	33	3.3	3.8	17	33	
SRP1038A-1R5M	1.5	20	20	30	4	4.6	16	33	
SRP1038A-2R2M	2.2	20	20	25	6.5	7	12	27	
SRP1038A-3R3M	3.3	20	20	18	10.8	11.8	11	20	
SRP1038A-4R7M	4.7	20	20	16	15	15.5	10	17	
SRP1038A-5R6M	5.6	20	20	15	17	19.3	9	14	
SRP1038A-6R8M	6.8	20	20	13	17.5	23.3	8.5	13.5	
SRP1038A-8R2M	8.2	20	20	12	20	24	8	12.5	
SRP1038A-100M	10	20	20	10	27	30	7.5	12	
SRP1038A-150M	15	20	20	9	40	45	6.25	10	
SRP1038A-220M	22	20	20	8	64	74	5	7	
SRP1038A-330M	33	20	20	6	92	112	3.5	5	
SRP1038A-470M	47	20	20	5	145	167	3	4.5	

Product Dimensions

Non-Lead Frame Terminal



Lead Frame Terminal



DIMENSIONS:
MM
(INCHES)

General Specifications

Test Voltage 1.0 V
 Test Frequency 100 KHz
 Operating Temperature -40 °C to +150 °C
 (Temperature rise included)
 Storage Temperature -40 °C to +125 °C
 Rated Current Inductance drops 20 % at Isat
 Temperature Rise 40 °C at rated I_{rms}
 Resistance to Soldering Heat +260 °C, 40 sec. max.
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

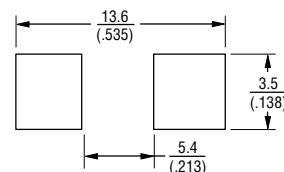
1 Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

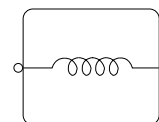
Core Carbonyl powder
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 500 pcs. per 13-inch reel

Please consult [Bourns® Model SRP-A Series Visual Inspection Guide](#) for detailed construction, processing and testing information.

Recommended Layout



Electrical Schematic



* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

** 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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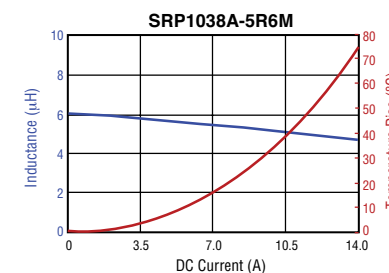
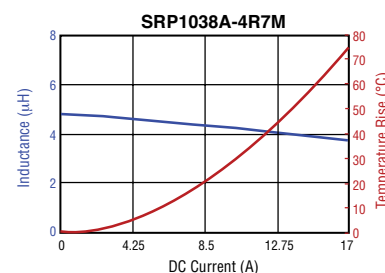
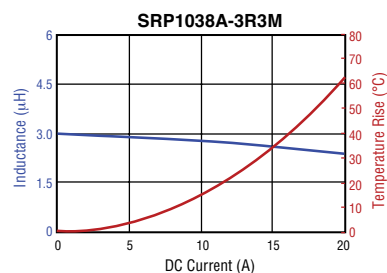
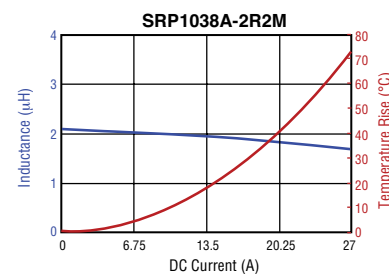
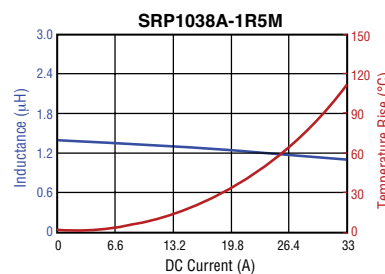
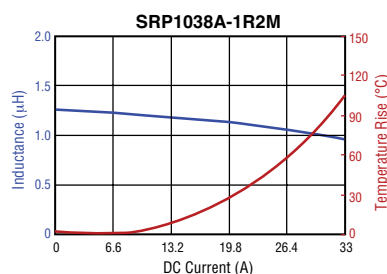
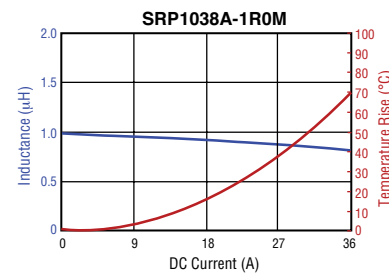
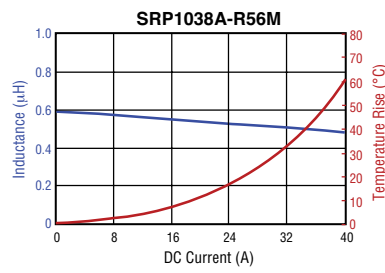
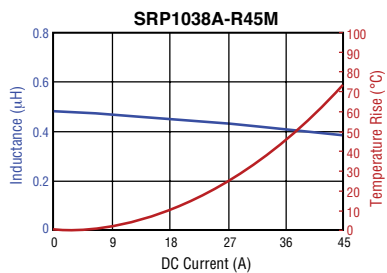
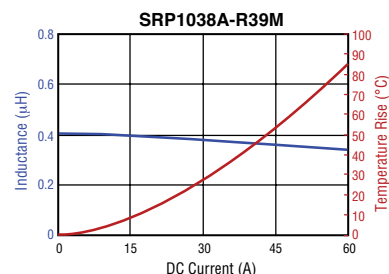
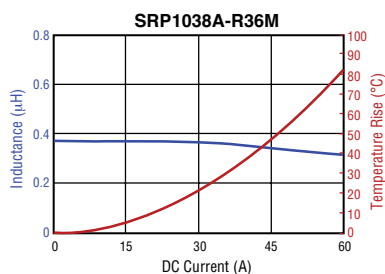
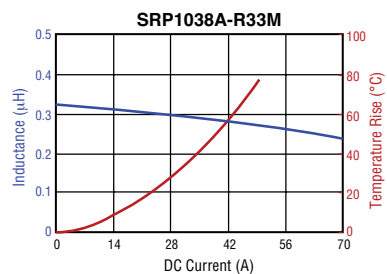
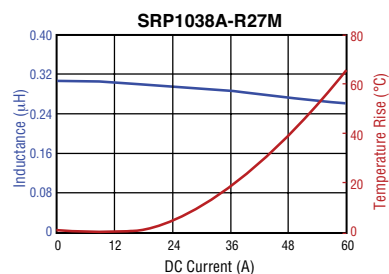
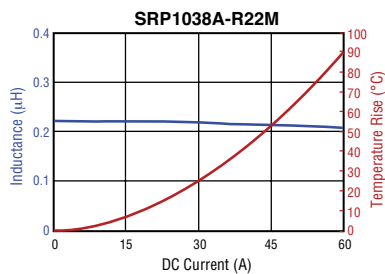
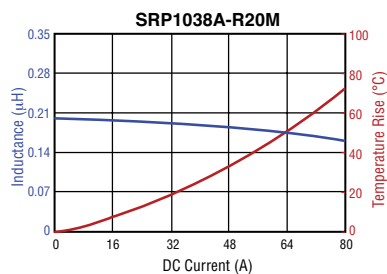


WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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BOURNS®

L vs. I Charts



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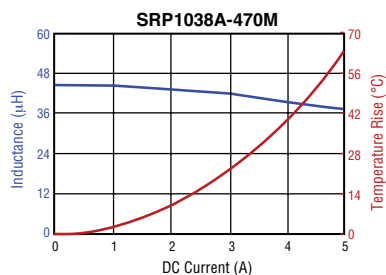
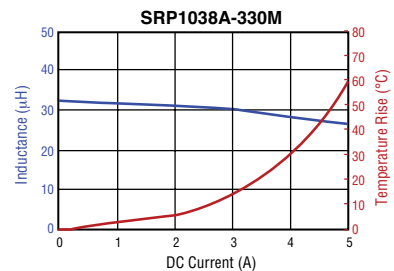
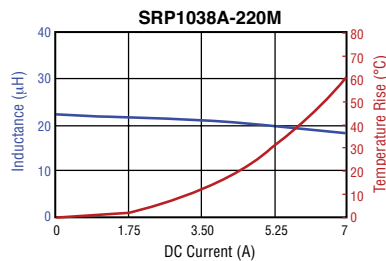
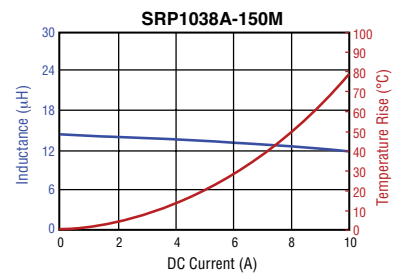
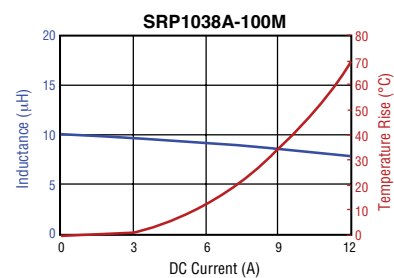
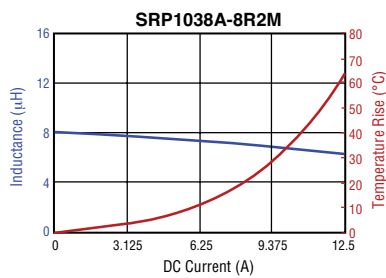
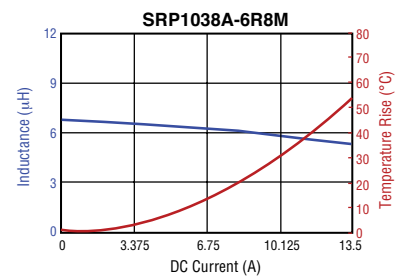
Users should verify actual device performance in their specific applications.

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SRP1038A Series - Shielded Power Inductors

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L vs. I Charts (Continued)



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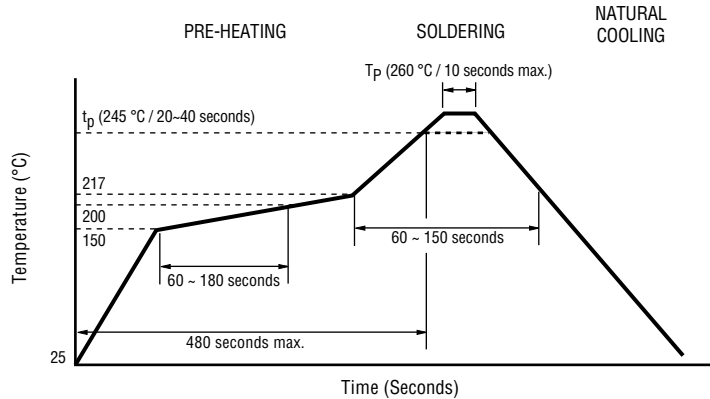
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BOURNS®

Soldering Profile



REFLOW TIMES: 3 MAX.

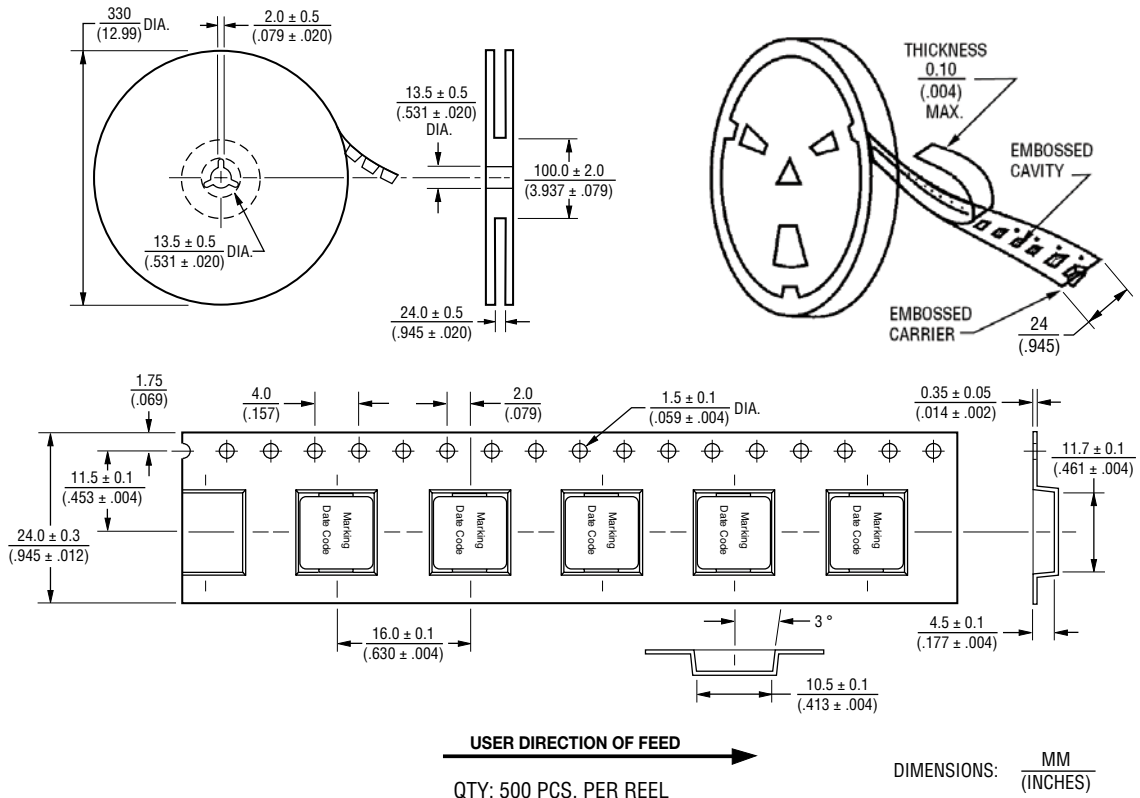
How to Order

SRP1038A - 100M

Model _____

Value Code (see table) _____

Packaging Specifications



REV. 05/19

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