

Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.22 to 47 μ H
- AEC-Q200 qualified
- RoHS compliant* and halogen free**

Applications

- Automotive systems:
 - Driver assistant
 - Information
 - Entertainment
 - Lighting
- DC/DC converters
- Power supplies

SRP1038A Series - Shielded Power Inductors

Electrical Specifications @ 25 °C

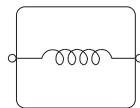
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Min.) @100 KHz / 1 V	SRF (MHz) Typ.	DCR (m Ω) Typ.	DCR (m Ω) Max.	I _{rms} (A)	I _{sat} (A)
	L (μ H)	Tol. (%)						
SRP1038A-R22M	0.22	20	10	155	0.8	1	35	60
SRP1038A-R27M	0.27	20	10	120	0.82	1	33	60
SRP1038A-R33M	0.33	20	15	108	1	1.2	31	60
SRP1038A-R36M	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
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

How to Order

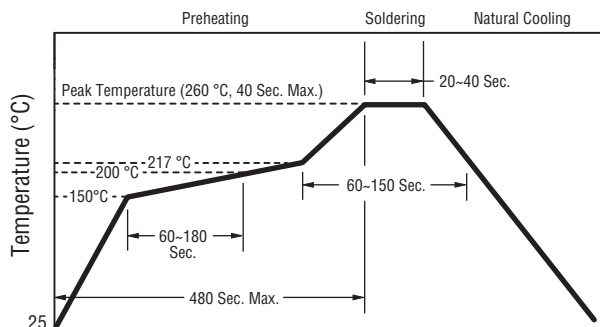
SRP1038A - 100M

Model _____
Value Code (see table) _____

Electrical Schematic



Soldering Profile



Peak Temperature: 260 °C max.
Max. Peak Temperature 260 °C: 40 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.

Reflow Times: 3 Times Max.

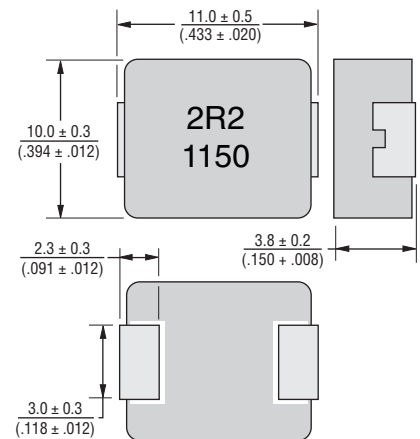
General Specifications

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 I_{sat}
Temperature Rise 40 °C at rated I_{rms}
Resistance to Soldering Heat +260 °C, 40 sec. max.

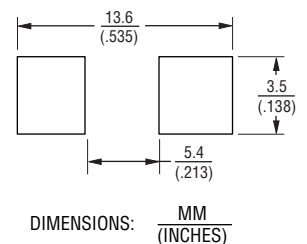
Materials

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

Product Dimensions



Recommended Layout



Please consult *Bourns® Model SRP-A Series Visual Inspection Guide* for detailed construction, processing and testing information.

* 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.

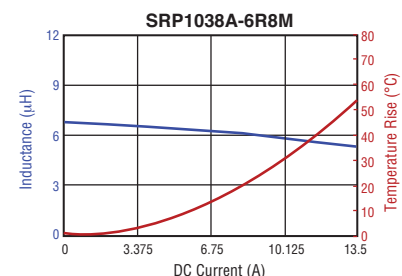
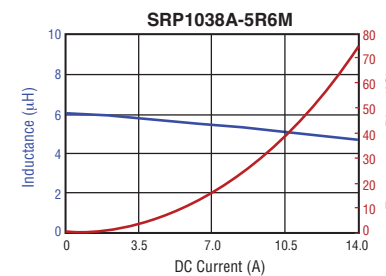
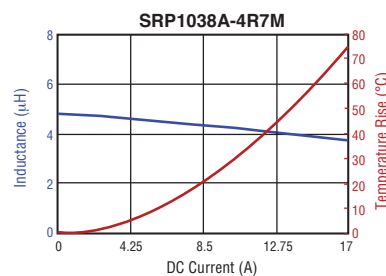
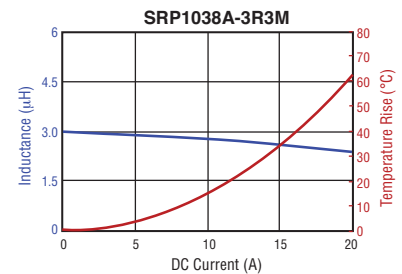
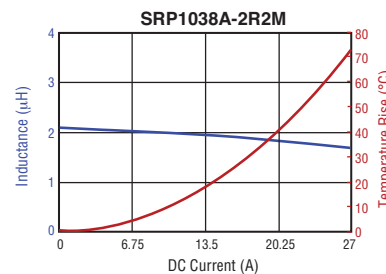
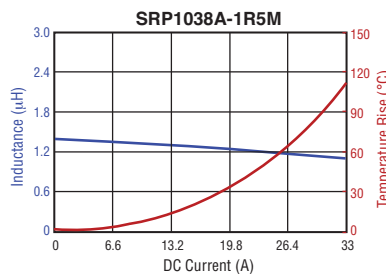
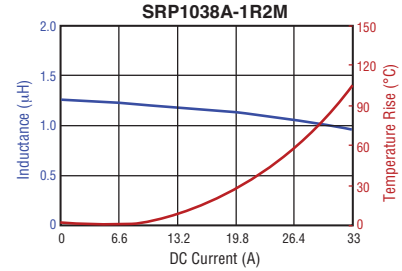
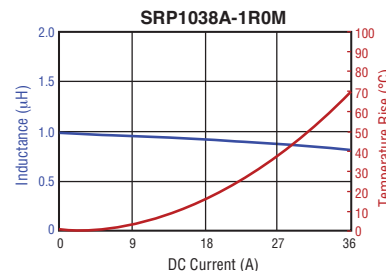
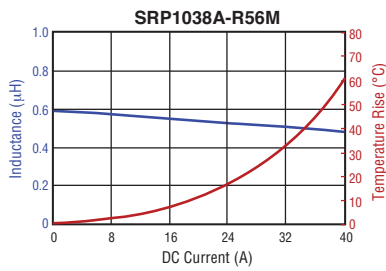
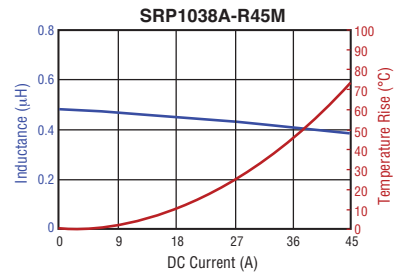
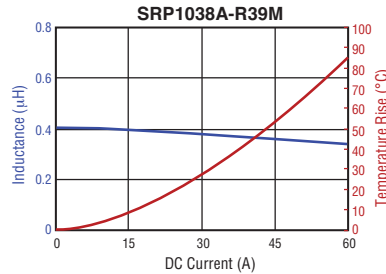
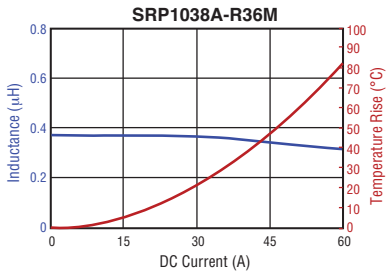
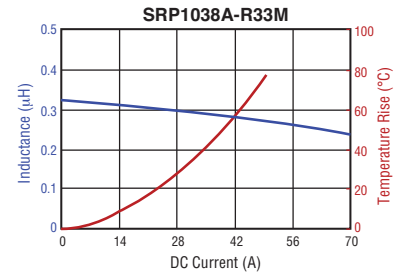
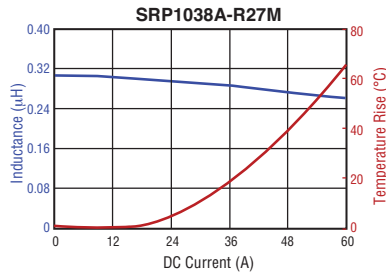
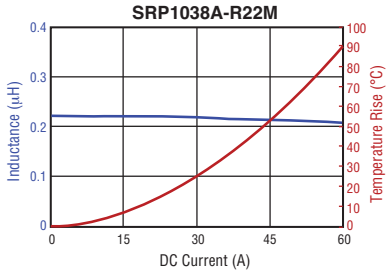
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

SRP1038A Series - Shielded Power Inductors



L vs. I Charts

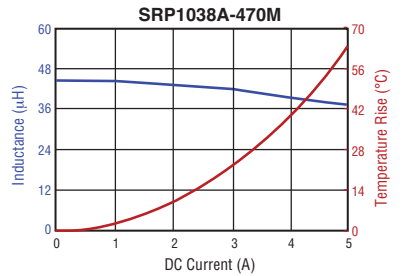
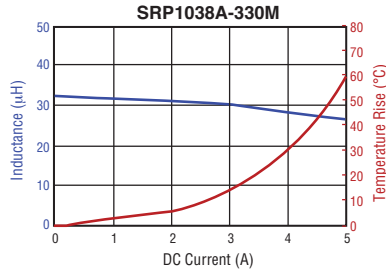
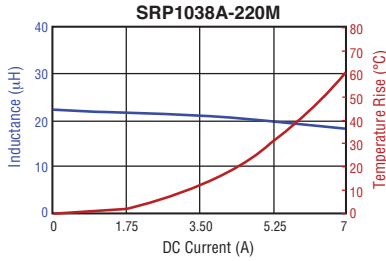
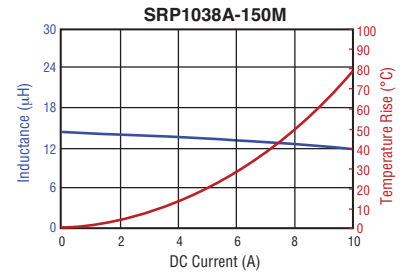
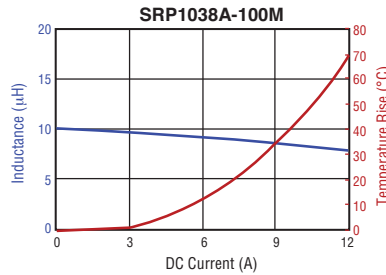
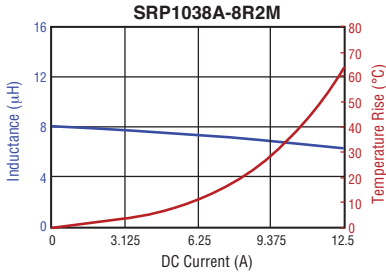


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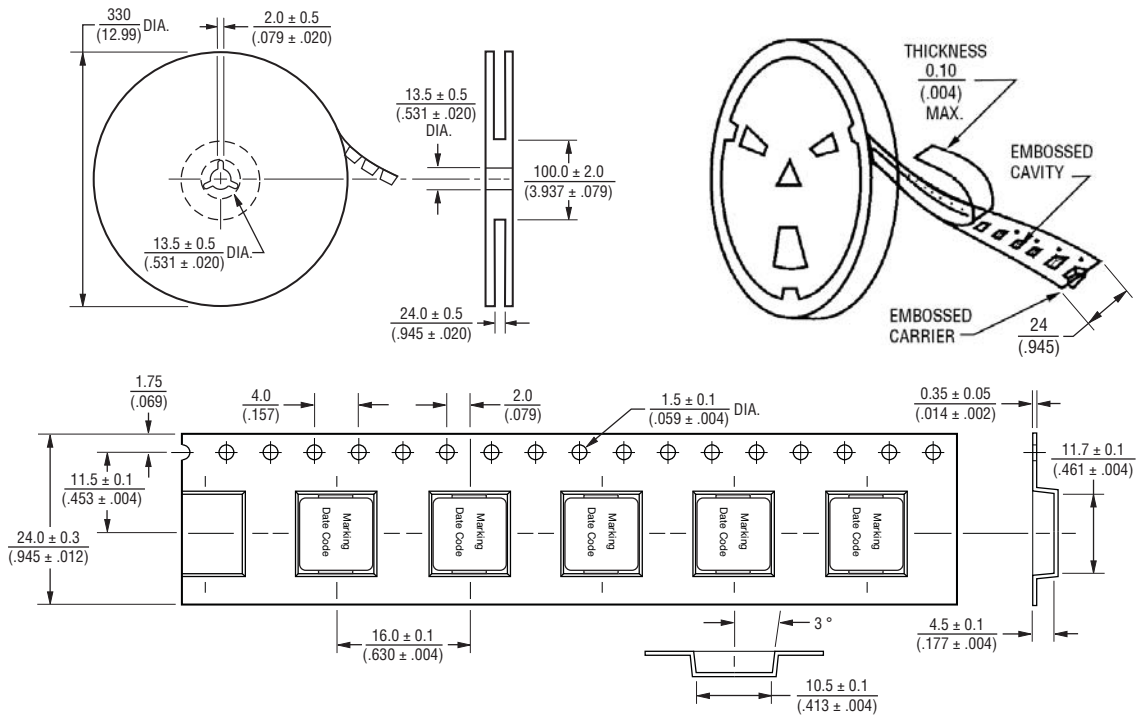
SRP1038A Series - Shielded Power Inductors



L vs. I Charts (Continued)



Packaging Specifications



USER DIRECTION OF FEED →

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

REV. 06/15

QTY: 500 PCS. PER REEL

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