



## Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

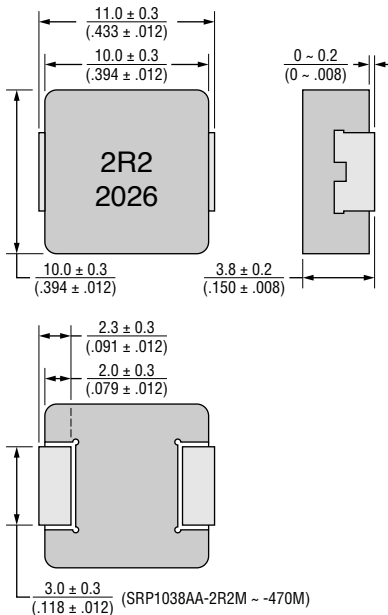
## SRP1038AA Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

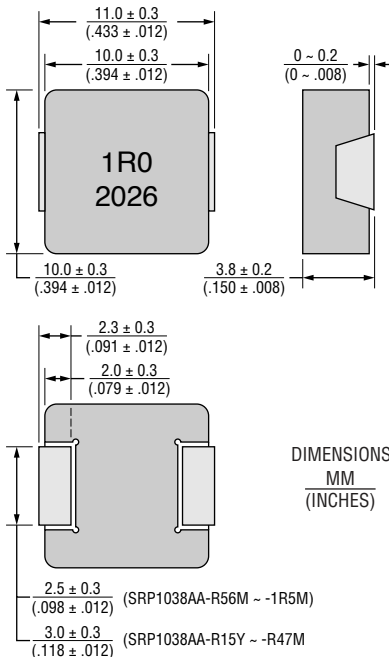
Bourns Part Number	Inductance @ 100 KHz / 1 V		Q (Typ.) @ 100 KHz / 1 V	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.	Terminal Type
	L (μH)	Tol. (%)							
SRP1038AA-R15Y	0.15	30	10	190	0.5	0.6	44	82	Non-Lead Frame
SRP1038AA-R22M	0.22	20	10	150	0.72	0.83	36	70	
SRP1038AA-R36M	0.36	20	10	105	1.05	1.18	33	51	
SRP1038AA-R47M	0.47	20	10	78	1.3	1.5	32	46	
SRP1038AA-R56M	0.56	20	10	68	1.6	1.8	25	34	
SRP1038AA-R68M	0.68	20	10	60	1.9	2.2	23	31	
SRP1038AA-1R0M	1.00	20	15	50	2.9	3.25	20	29	
SRP1038AA-1R5M	1.50	20	15	36	3.7	4.2	17.5	26	
SRP1038AA-2R2M	2.20	20	15	26	5.8	6.7	15	20	
SRP1038AA-3R3M	3.30	20	15	20	10.5	11.8	11	17.5	
SRP1038AA-4R7M	4.70	20	15	16	15.8	19	8.8	15.2	
SRP1038AA-5R6M	5.60	20	15	14	19	22.8	8.0	14.1	
SRP1038AA-6R8M	6.80	20	15	13	22	24.5	7.8	12.2	
SRP1038AA-100M	10.0	20	20	11	27	30	7.5	8.6	
SRP1038AA-150M	15.0	20	20	9	41	45	6.25	7.0	
SRP1038AA-220M	22.0	20	20	8	58	66	5.0	6.2	
SRP1038AA-330M	33.0	20	20	6.5	84	91	4.4	5.5	
SRP1038AA-470M	47.0	20	20	5	125	143	3.5	4.0	

### Product Dimensions

#### Lead Frame Terminal



#### Non-Lead Frame Terminal



### Additional Information

Click these links for more information:



### General Specifications

Operating Temp. ....-55 °C to +155 °C  
(Temperature rise included)  
Storage Temperature (Component)  
.....-55 °C to +155 °C  
Rated Current  
..... Inductance drops 30 % at I<sub>sat</sub>  
Temperature Rise ... 40 °C at rated I<sub>rms</sub><sup>1</sup>  
Moisture Sensitivity Level..... 1  
ESD Classification (HBM)..... N/A

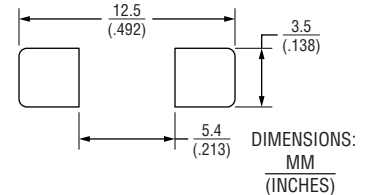
<sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

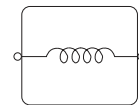
Core.....Metal alloy powder  
Wire.....Enameled copper  
Terminal Finish .....Sn  
Packaging..... 500 pcs. per 13-inch reel

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

### Recommended Layout



### Electrical Schematic



**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

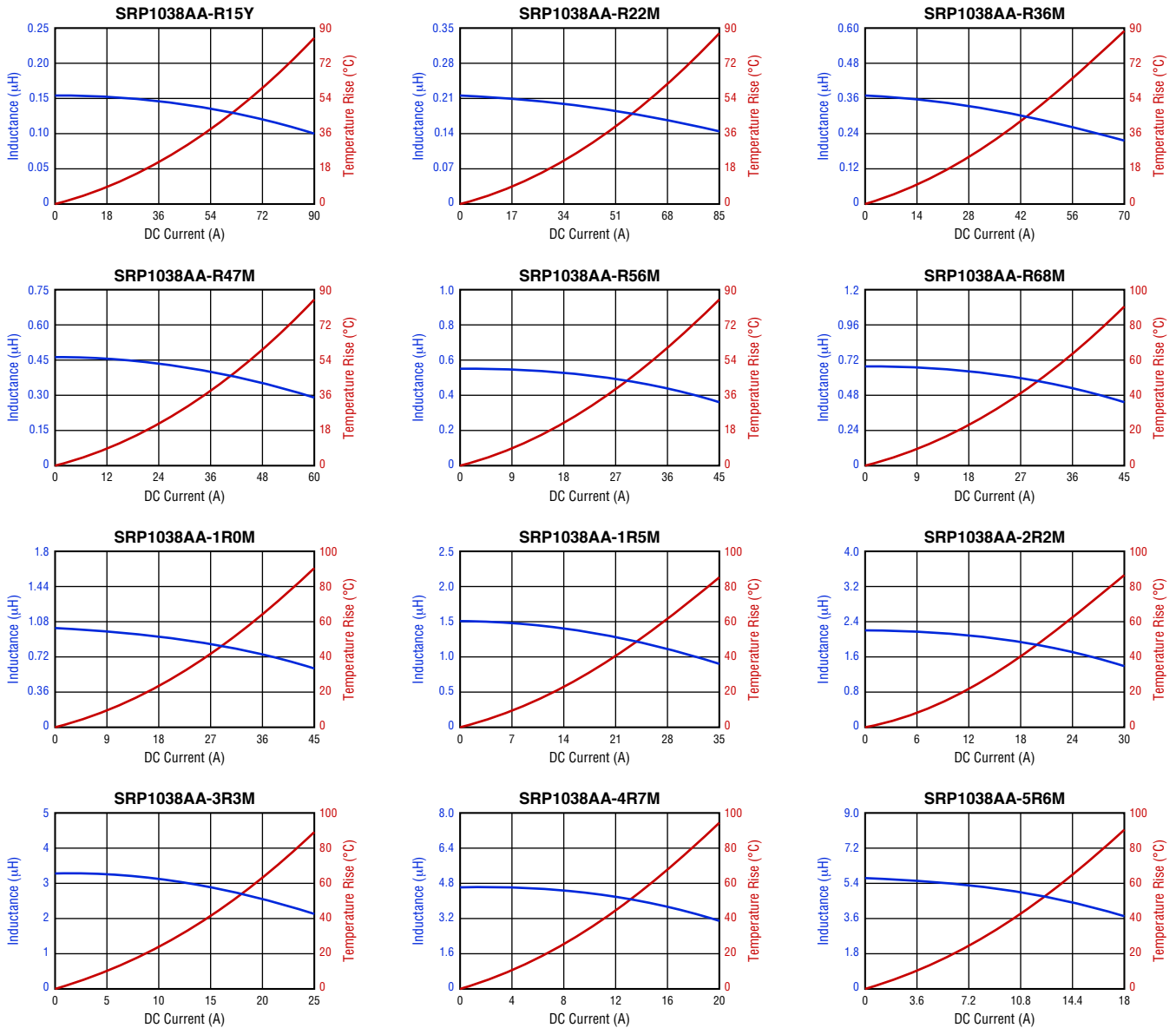
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRP1038AA Series - Shielded Power Inductors



## L vs. I Charts



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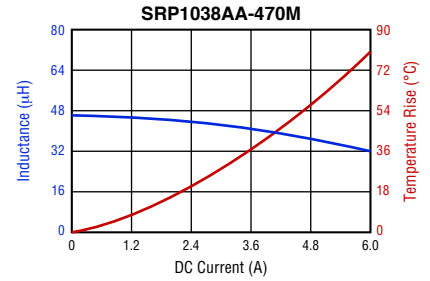
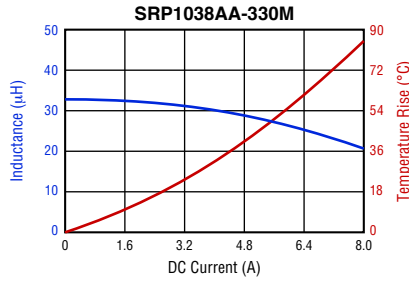
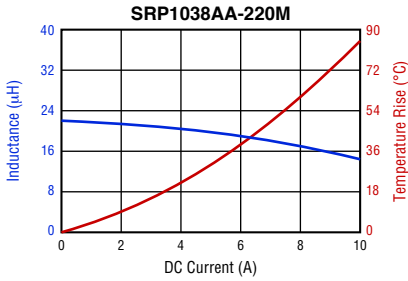
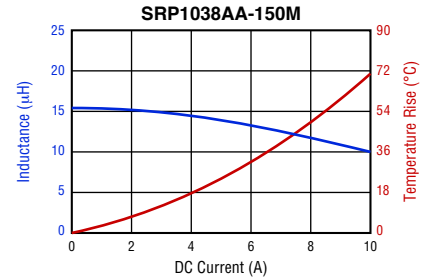
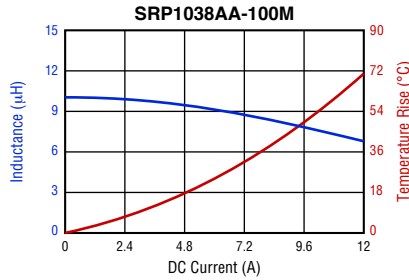
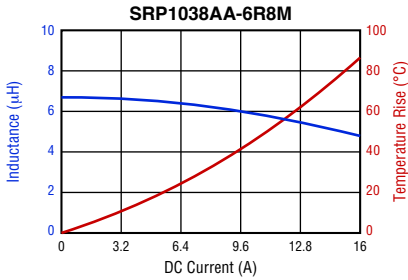
Users should verify actual device performance in their specific applications.

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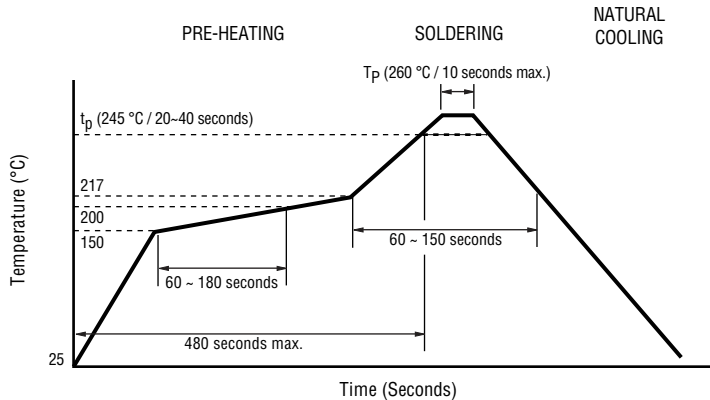
# SRP1038AA Series - Shielded Power Inductors



## L vs. I Charts (continued)



## Soldering Profile



REFLOW TIMES: 3 MAX.

## How to Order

**SRP1038AA - 1R0M**

Model \_\_\_\_\_  
Value Code (see table) \_\_\_\_\_

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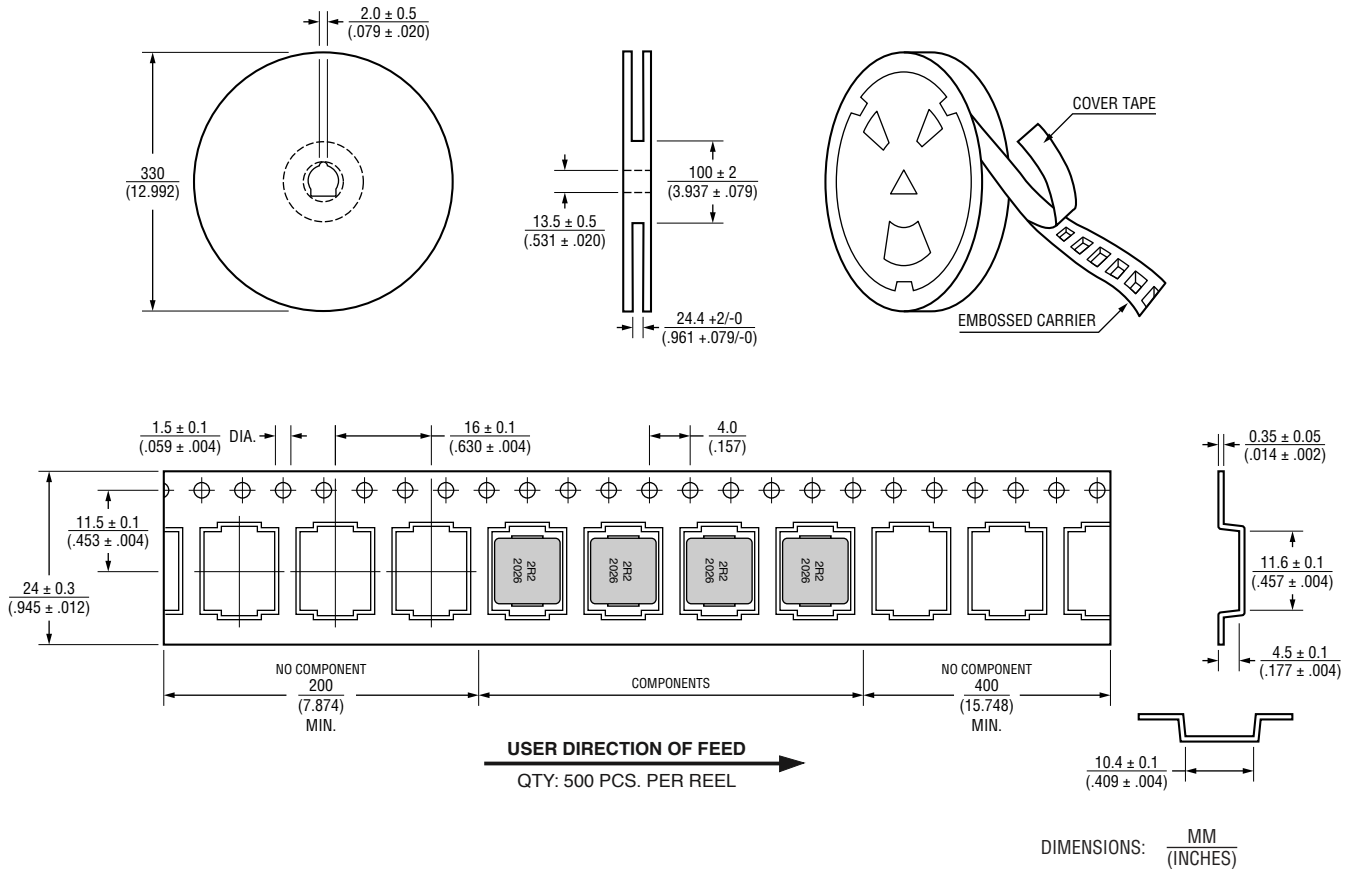
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# SRP1038AA Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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