



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.10 to 33  $\mu$ H
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRP7028A 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 $\Omega$ ) Typ.	DCR (m $\Omega$ ) Max.	I <sub>rms</sub> (A)	I <sub>sat</sub> (A)	Terminal Type
	L ( $\mu$ H)	ToL (%)							
SRP7028A-R10M	0.10	$\pm 20$	5	300	1.2	1.7	32.5	60	Lead Frame
SRP7028A-R15Y	0.15	$\pm 30$	5	220	1.5	1.9	27	45	
SRP7028A-R22Y	0.22	$\pm 30$	5	150	2.1	2.8	23	40	
SRP7028A-R33M	0.33	$\pm 20$	10	140	3.5	3.9	20	32	
SRP7028A-R47M	0.47	$\pm 20$	10	80	4	4.2	17.5	26	
SRP7028A-R56M	0.56	$\pm 20$	15	70	4.7	5.0	16.5	25.5	
SRP7028A-R68M	0.68	$\pm 20$	15	67	4.8	5.5	15.5	25	
SRP7028A-R75M	0.75	$\pm 20$	15	65	5.5	6.6	14.5	24.5	
SRP7028A-R82M	0.82	$\pm 20$	15	61	6.7	8.0	13	24	
SRP7028A-1R0M	1.0	$\pm 20$	20	58	8.3	10.0	11	22	
SRP7028A-1R5M	1.5	$\pm 20$	20	38	13	15.0	9	18	
SRP7028A-1R8M	1.8	$\pm 20$	20	36	14	17.0	8.5	16	
SRP7028A-2R2M	2.2	$\pm 20$	20	32	18	20.0	8	14	
SRP7028A-2R5M	2.5	$\pm 20$	20	30	20	22.0	7	13	
SRP7028A-3R3M	3.3	$\pm 20$	20	25	28	30.0	6	12	
SRP7028A-4R7M	4.7	$\pm 20$	20	21	37	40.0	5.5	10	
SRP7028A-5R6M	5.6	$\pm 20$	20	19	43	48.0	5	9	
SRP7028A-6R8M	6.8	$\pm 20$	20	18	54	60.0	4.5	8	
SRP7028A-8R2M	8.2	$\pm 20$	20	17	64	68.0	4	7.5	
SRP7028A-100M	10	$\pm 20$	20	14	75	85.0	3.5	6	
SRP7028A-150M	15	$\pm 20$	20	12	107	123.0	3.0	4	
SRP7028A-220M	22	$\pm 20$	20	10	165	190.0	2.0	3.5	
SRP7028A-330M	33	$\pm 20$	20	8	200	240.0	2.0	2.5	

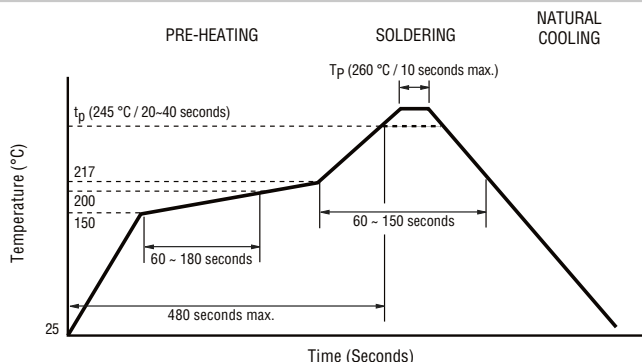
### How to Order

SRP7028A - 100M

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

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

### Soldering Profile



REFLOW TIMES: 3 MAX.



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

\* 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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

### 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<sub>sat</sub>  
Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
Resistance to Soldering Heat ..... +260 °C, 40 sec. max.  
Moisture Sensitivity Level ..... 1  
ESD Classification (HBM)..... N/A

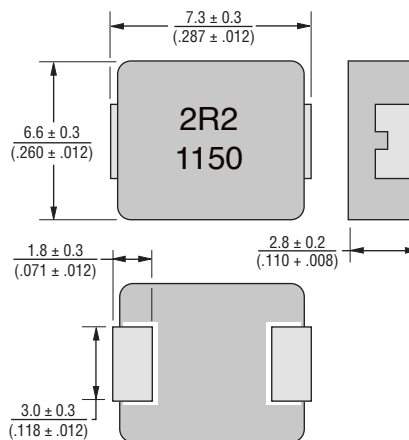
<sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

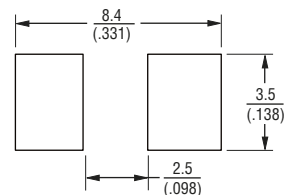
Core ..... Carbonyl powder  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging ..... 1000 pcs. per 13-inch reel

### Product Dimensions

#### Lead Frame Terminal



### Recommended Layout

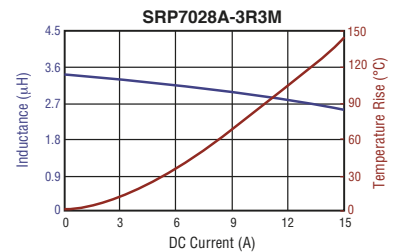
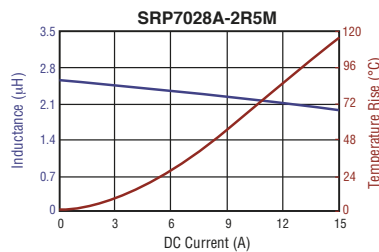
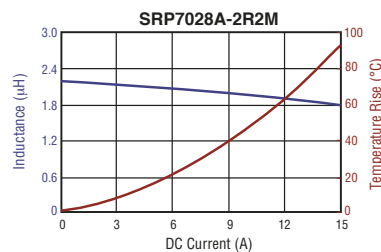
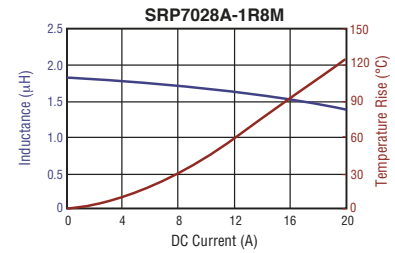
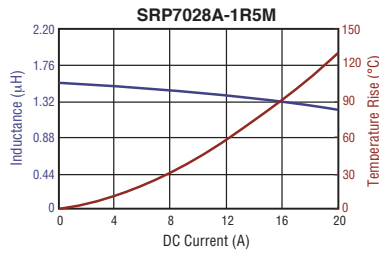
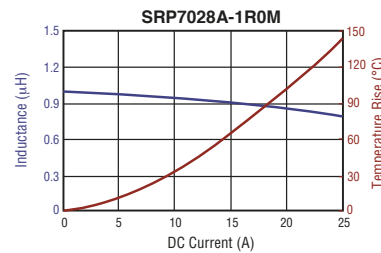
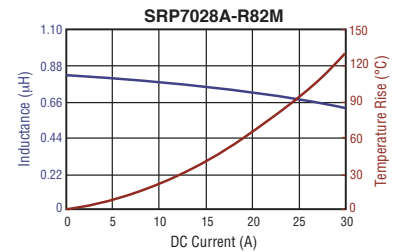
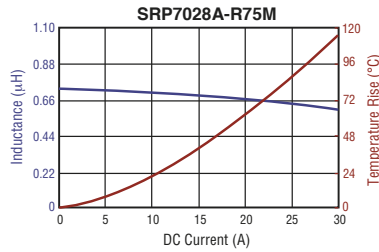
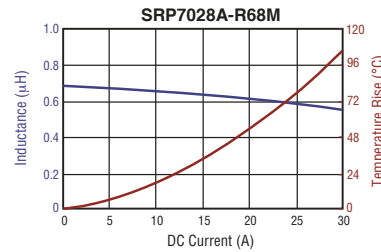
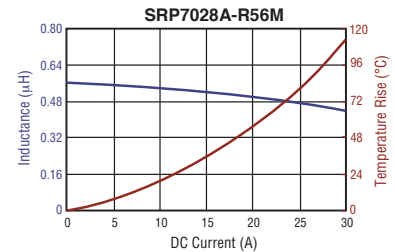
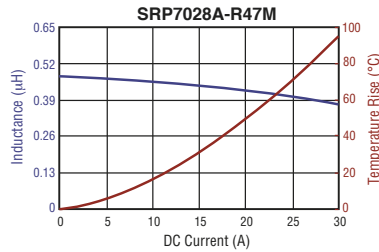
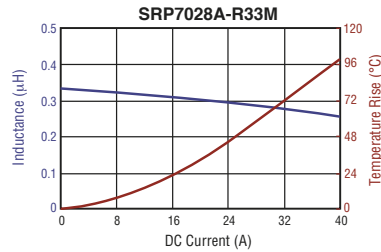
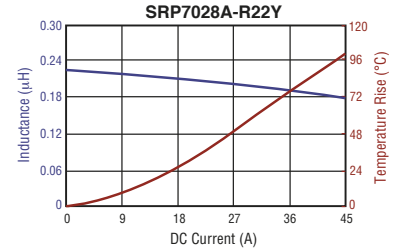
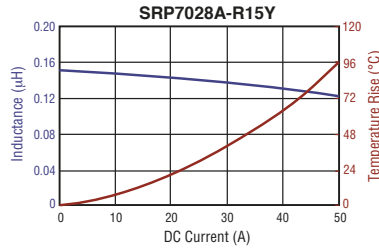
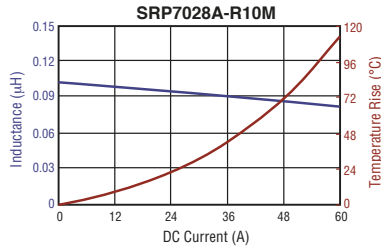


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

# SRP7028A Series - Shielded Power Inductors

**BOURNS®**

## L vs. I Charts

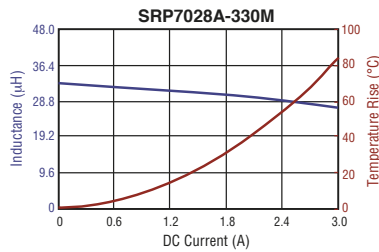
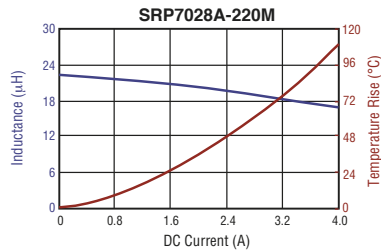
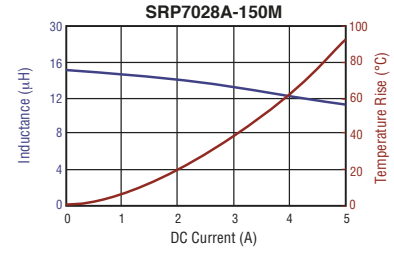
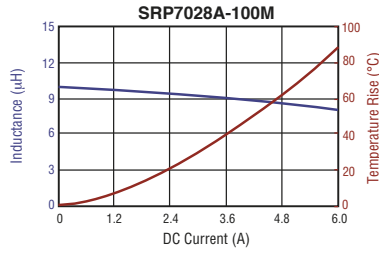
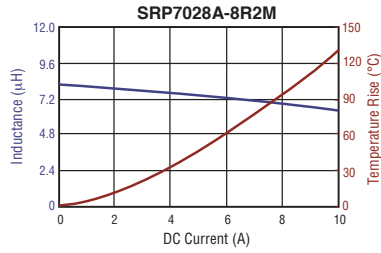
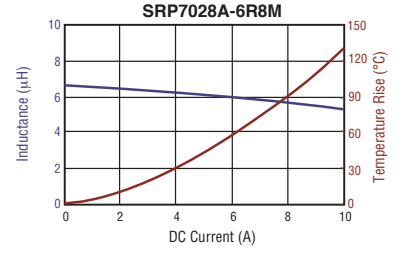
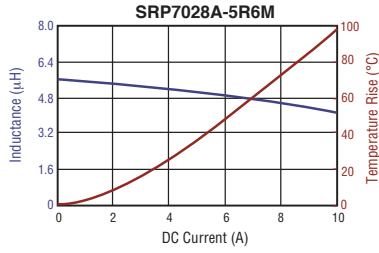
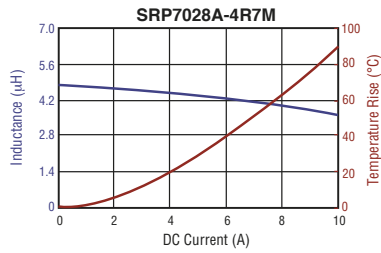


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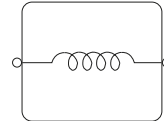
# SRP7028A Series - Shielded Power Inductors



## L vs. I Charts (Continued)



## Electrical Schematic





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