



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### Features

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

### Applications

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

## 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)	Isat (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	

### General Specifications

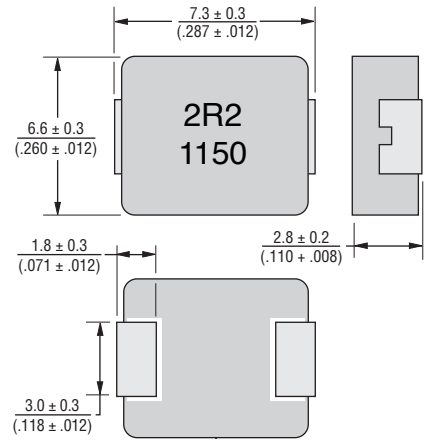
Test Voltage ..... 1.0 V  
 Test Frequency ..... 100 KHz  
 Operating Temperature ..... -40 °C to +150 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +125 °C  
 Rated Current ..... Inductance drops 20 % at Isat  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Resistance to Soldering Heat ..... +260 °C, 40 sec. max.

### Materials

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

### Product Dimensions

#### Lead Frame Terminal

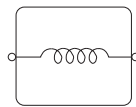


### How to Order

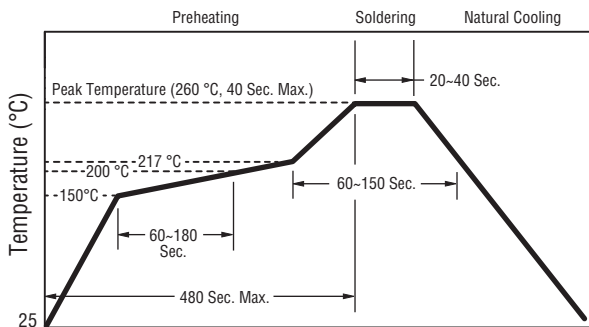
SRP7028A - 100M

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

### Electrical Schematic



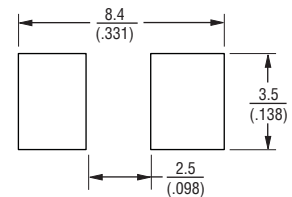
### Soldering Profile



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.

### Recommended Layout



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

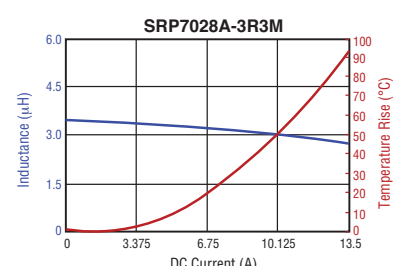
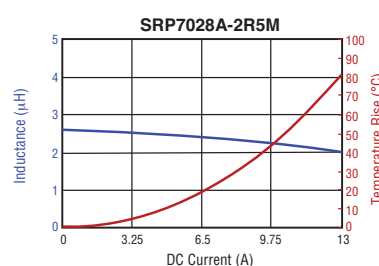
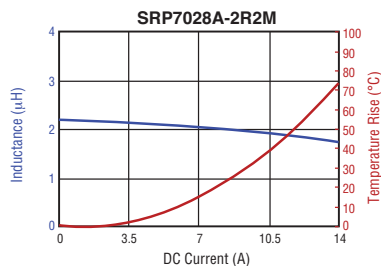
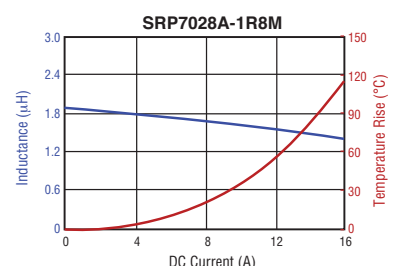
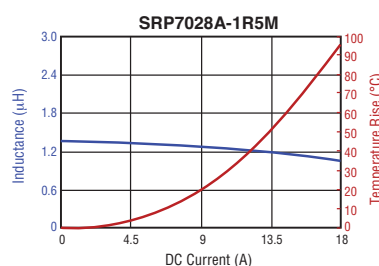
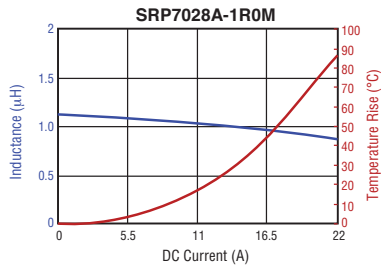
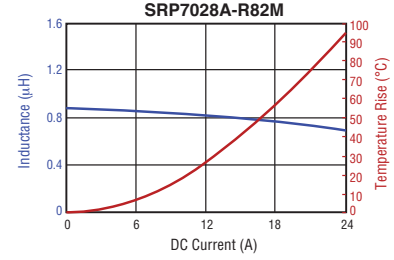
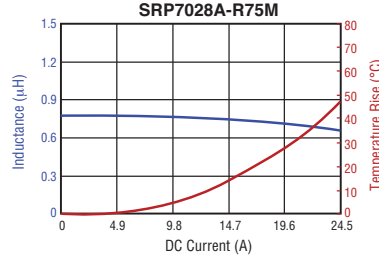
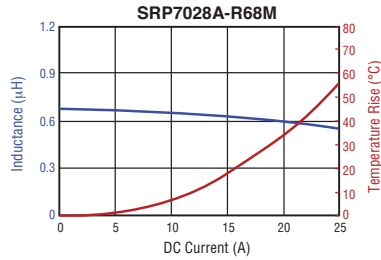
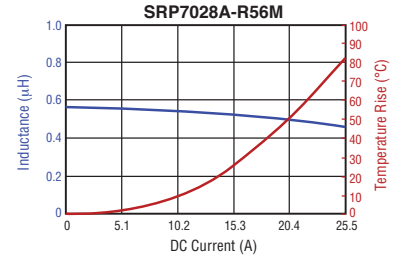
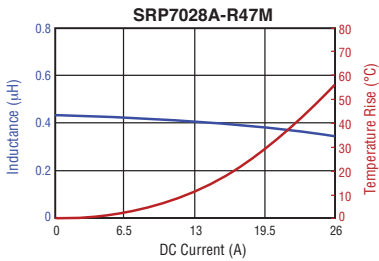
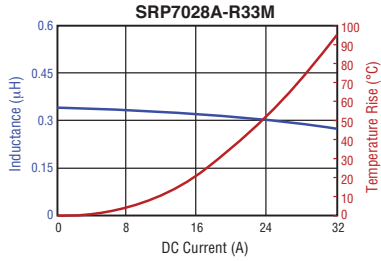
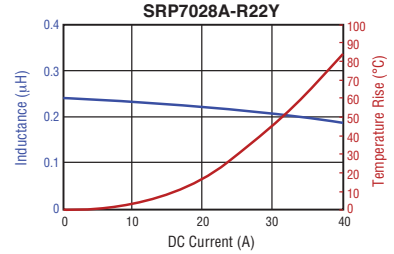
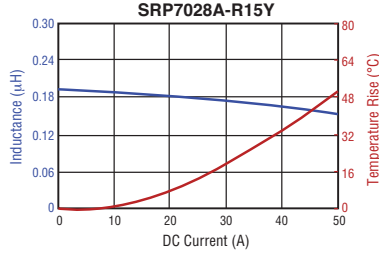
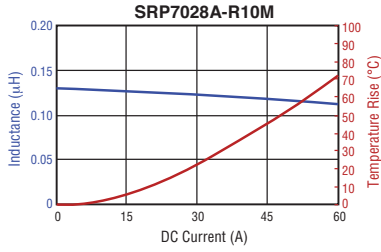
\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 \*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (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.

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

# SRP7028A Series - Shielded Power Inductors

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## L vs. I Charts

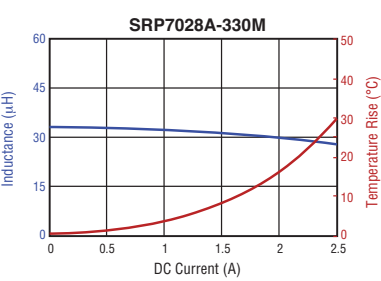
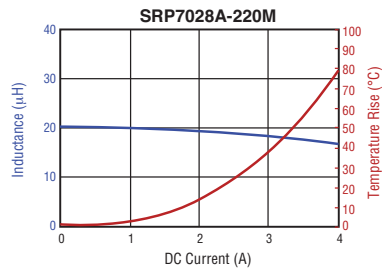
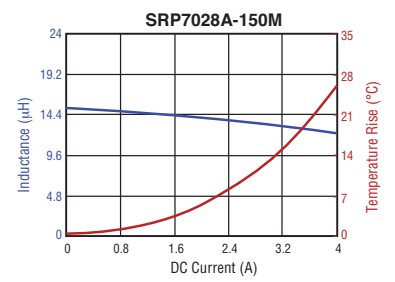
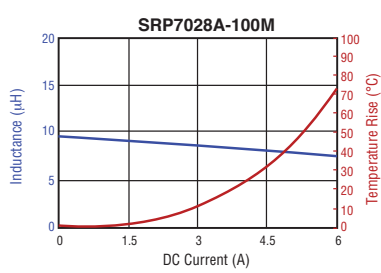
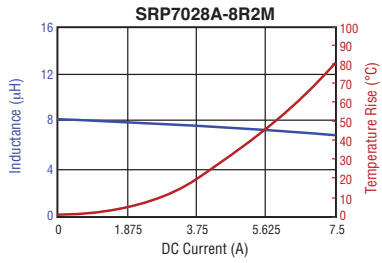
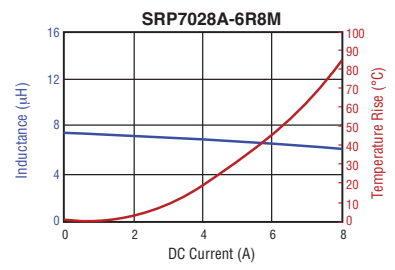
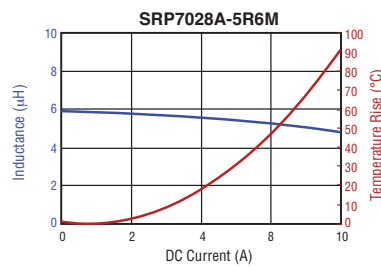
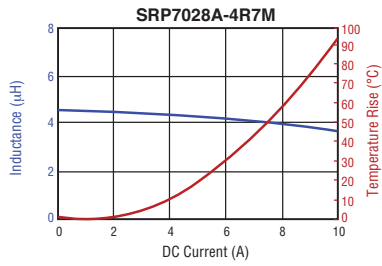


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# SRP7028A Series - Shielded Power Inductors



## L vs. I Charts (Continued)

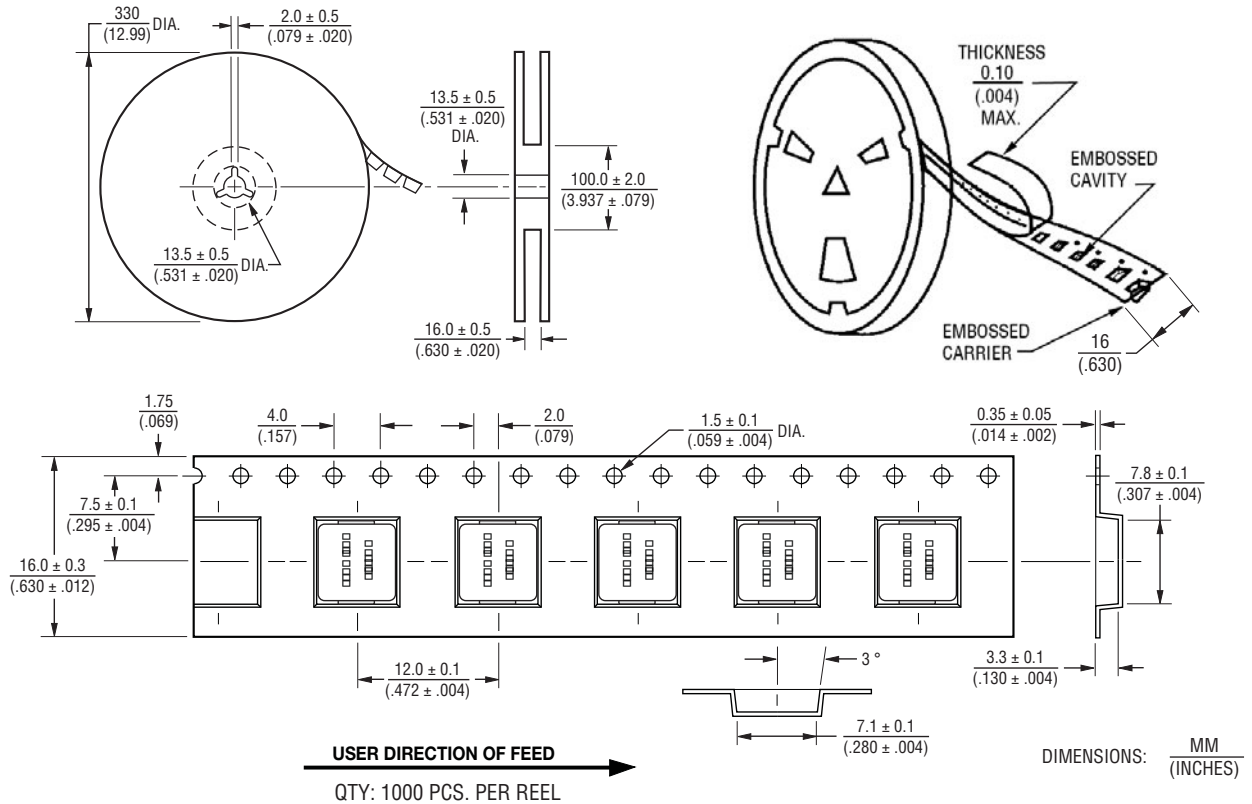


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# SRP7028A Series - Shielded Power Inductors

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## Packaging Specifications



REV. 09/16

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