



**THE DATASHEET OF  
SRP7028C-R33M**





### Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low buzz noise
- Inductance range: 0.10 to 22  $\mu$ H
- RoHS compliant\* and halogen free\*\*



This series is currently available but not recommended for new designs.

## SRP7028C 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) Typ.	Isat (A) Typ.	Terminal Type
	L ( $\mu$ H)	Tol. (%)							
SRP7028C-R10M	0.10	$\pm 20$	5	196	1.2	1.7	37.5	60.0	Lead Frame
SRP7028C-R15M	0.15	$\pm 20$	5	190	1.5	1.9	27.0	50.0	
SRP7028C-R24M	0.24	$\pm 30$	10	118	2.5	3.1	23.0	39.0	
SRP7028C-R25M	0.25	$\pm 20$	10	118	2.5	3.1	23.0	39.0	
SRP7028C-R33M	0.33	$\pm 20$	10	115	3.5	3.9	20.0	32.0	
SRP7028C-R47M	0.47	$\pm 20$	10	62	4.0	4.3	17.5	27.0	
SRP7028C-R68M	0.68	$\pm 20$	15	55	4.8	5.5	15.5	25.0	
SRP7028C-1R0M	1.00	$\pm 20$	15	45	8.3	10.0	11.0	22.0	
SRP7028C-1R5M	1.50	$\pm 20$	15	40	11.0	14.0	9.0	18.0	
SRP7028C-2R2M	2.20	$\pm 20$	15	32	15.0	18.0	8.0	14.0	
SRP7028C-3R3M	3.30	$\pm 20$	15	25	27.0	30.0	6.0	13.5	
SRP7028C-4R7M	4.70	$\pm 20$	15	21	37.0	40.0	5.5	10.0	
SRP7028C-6R8M	6.80	$\pm 20$	15	16	54.0	60.0	4.5	8.3	
SRP7028C-8R2M	8.20	$\pm 20$	15	15	60.0	66.0	4.1	6.8	
SRP7028C-100M	10.00	$\pm 20$	15	14	63.0	68.0	3.5	6.0	
SRP7028C-150M	15.00	$\pm 20$	20	12	107.0	123.0	3.0	4.0	
SRP7028C-220M	22.00	$\pm 20$	20	10	155.0	180.0	2.2	3.6	

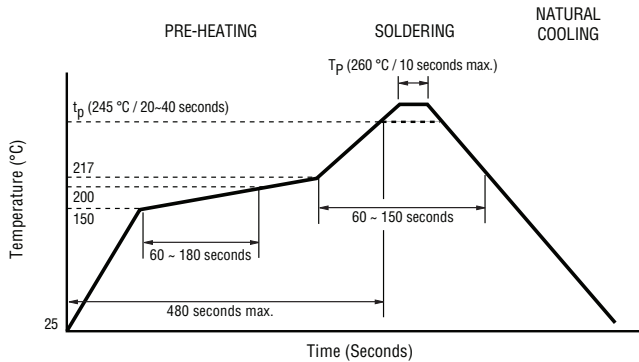
### How to Order

SRP7028C - 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 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. 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).

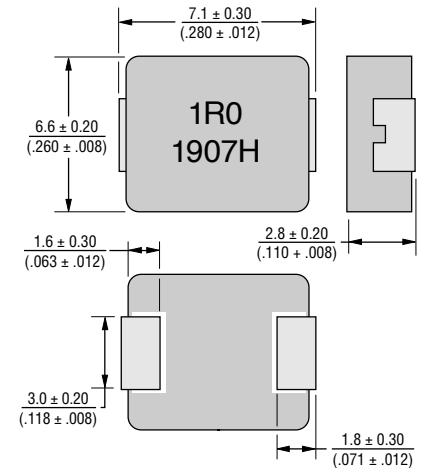
### General Specifications

Operating Temperature .....-40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature (Component) ..... -40 °C to +125 °C  
Rated Current ..... Inductance drops 30 % at Isat  
Temperature Rise ... 40 °C at rated I<sub>rms</sub>!  
Moisture Sensitivity Level..... 1  
ESD Classification (HBM)..... N/A  
Note 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.

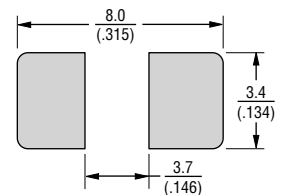
### Materials

Core..... Metal alloy powder  
Wire ..... Enameled copper  
Terminal Finish ..... Sn/Ni  
Packaging..... 1000 pcs. per 13-inch reel

### Product Dimensions



### Recommended Layout

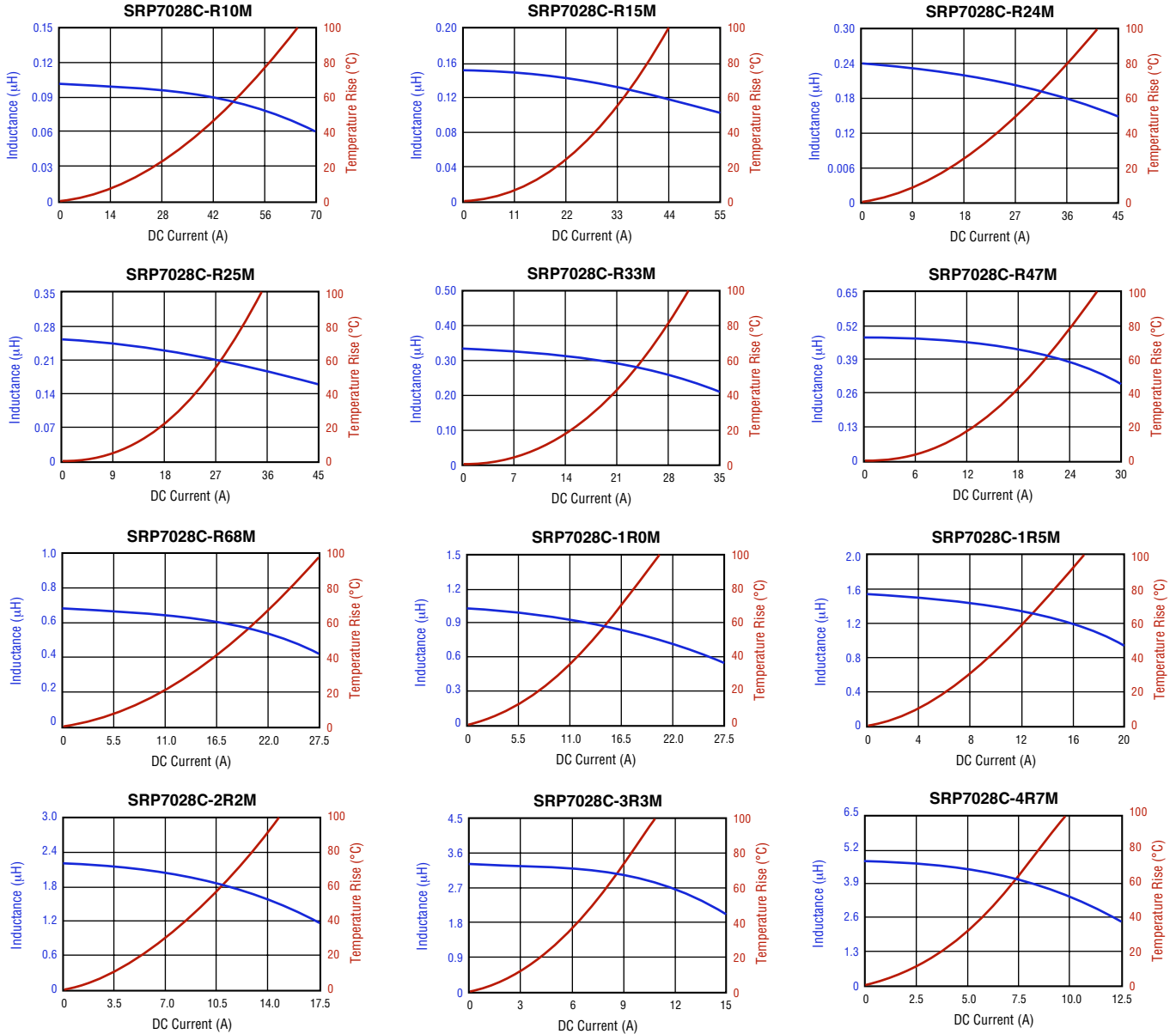


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

# SRP7028C Series - Shielded Power Inductors



## L vs. I Charts



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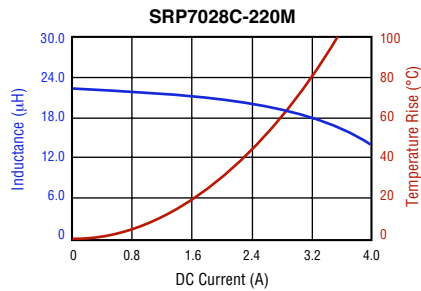
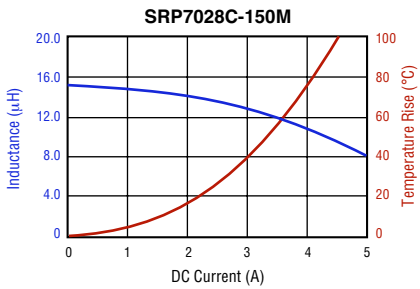
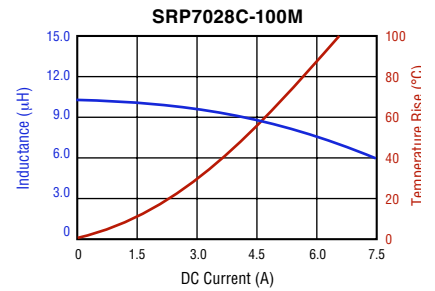
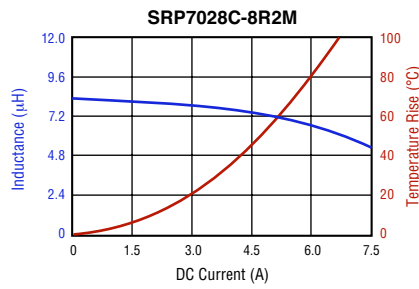
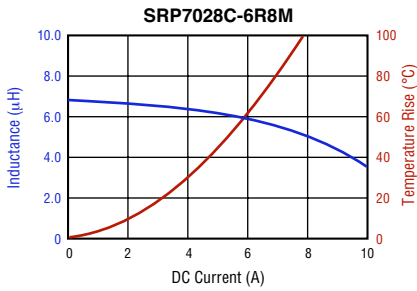
Users should verify actual device performance in their specific applications.

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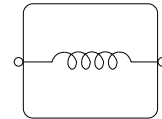
# SRP7028C Series - Shielded Power Inductors



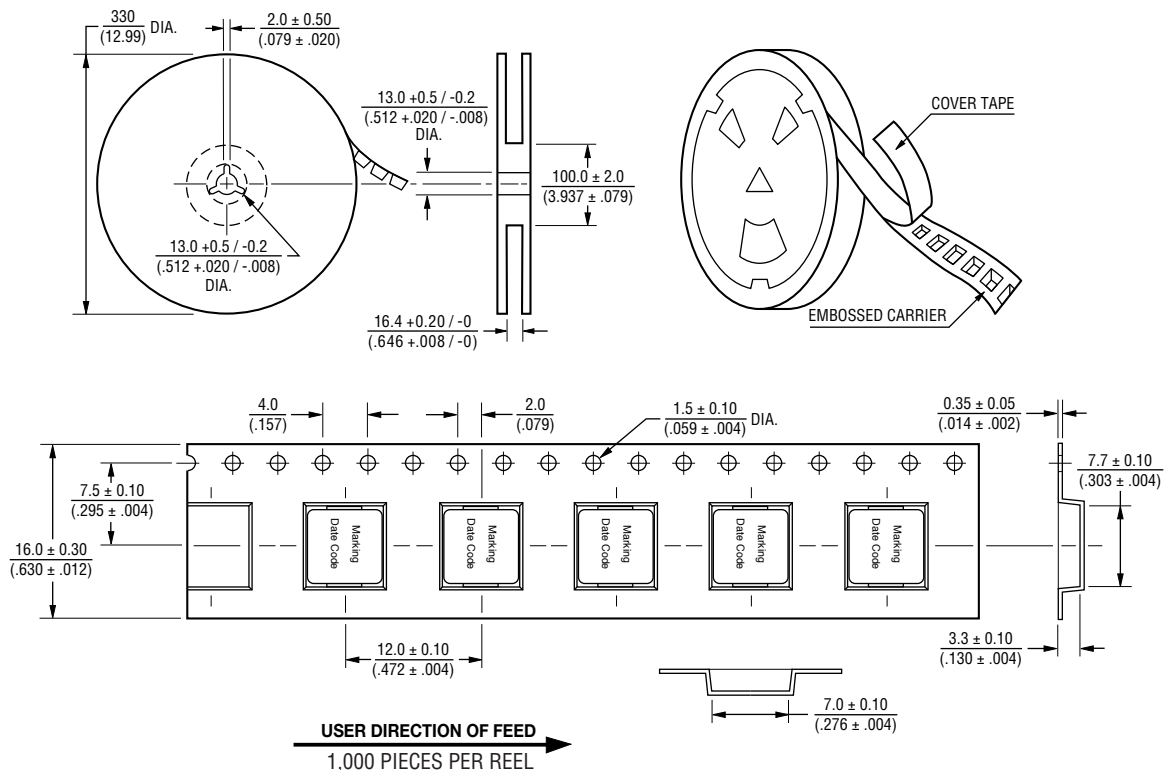
## L vs. I Charts (Continued)



## Electrical Schematic



## Packaging Specifications



REV. 05/22

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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