



## Features

- Shielded construction
- Carbonyl powder core
- High saturation current
- Low radiation
- Low buzz noise
- RoHS compliant\* and halogen free\*\*

## SRP7028CC Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Inductance @ 100 kHz / 1 V		Q Min.	SRF (MHz) Typ.	DCR (mΩ) Typ.	DCR (mΩ) Max.	I <sub>rms</sub> (A) Typ.	I <sub>sat</sub> (A) Typ.
	L (μH)	Tol. %						
SRP7028CC-R10Y	0.10	30	5	300	1.2	1.7	37.5	60.0
SRP7028CC-R15Y	0.15	30	5	220	1.5	1.9	27.0	50.0
SRP7028CC-R22Y	0.22	30	5	150	2.2	2.6	25.0	40.0
SRP7028CC-R25M	0.25	20	10	150	2.5	3.1	23.0	39.0
SRP7028CC-R33M	0.33	20	10	140	3.5	3.9	20.0	32.0
SRP7028CC-R47M	0.47	20	10	80	4.0	4.3	17.5	27.0
SRP7028CC-R68M	0.68	20	15	67	4.8	5.5	15.5	25.0
SRP7028CC-1R0M	1.0	20	20	58	8.3	10.0	11.0	22.0
SRP7028CC-1R5M	1.5	20	20	38	11	14	9.0	18.0
SRP7028CC-2R2M	2.2	20	20	32	15	18	8.0	14.0
SRP7028CC-3R3M	3.3	20	20	25	27	30	6.0	13.5
SRP7028CC-4R7M	4.7	20	20	21	37	40	5.5	10.0
SRP7028CC-6R8M	6.8	20	20	18	54	60	4.5	8.3
SRP7028CC-8R2M	8.2	20	20	17	60	66	4.1	6.8
SRP7028CC-100M	10	20	20	14	63	68	3.5	6.0
SRP7028CC-150M	15	20	20	12	107	123	3.0	4.0
SRP7028CC-220M	22	20	20	10	155	180	2.2	3.6

### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature (Component) ..... -40 °C to +125 °C  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub><sup>1</sup>  
 Rated Current

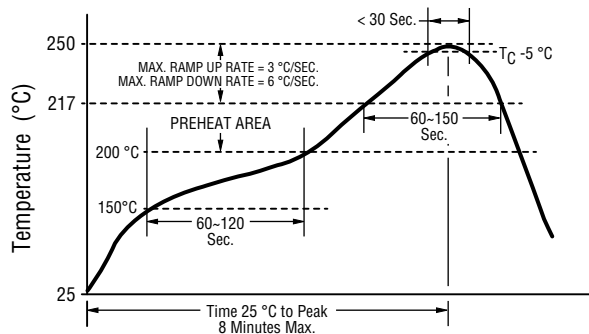
..... Inductance drops 30 % at I<sub>sat</sub>  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

<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

### Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T <sub>smin</sub> ) - Temperature Max. (T <sub>smax</sub> ) - Time (t <sub>s</sub> ) from T <sub>smin</sub> to T <sub>smax</sub>	150 °C 200 °C 60-120 seconds
Ramp-up Rate (T <sub>L</sub> to T <sub>p</sub> )	3 °C/second max.
Liquidous temperature (T <sub>L</sub> ) Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	217 °C 60-150 seconds
Peak package body temperature (T <sub>p</sub> )	250 °C
Time within 5 °C of Actual Peak Temperature (t <sub>p</sub> )	< 30 seconds
Ramp-Down Rate (T <sub>p</sub> to T <sub>L</sub> )	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.



### WARNING Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

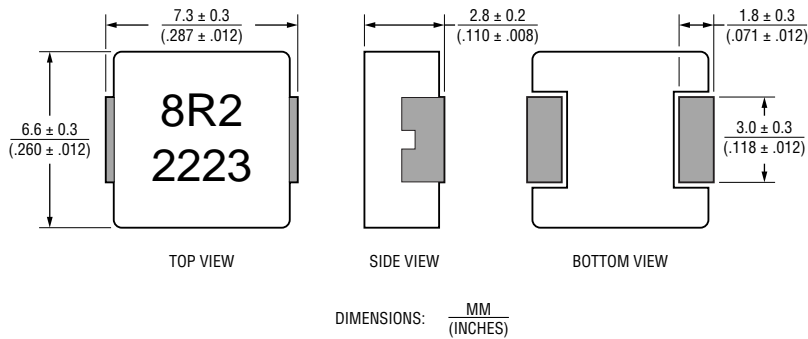
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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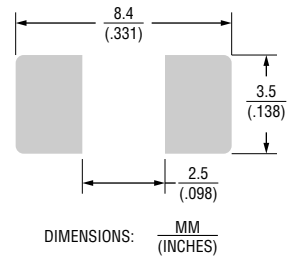
# SRP7028CC Series - Shielded Power Inductors

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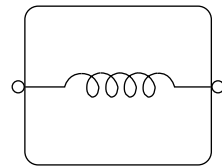
## Product Dimensions



## Recommended Layout



## Electrical Schematic

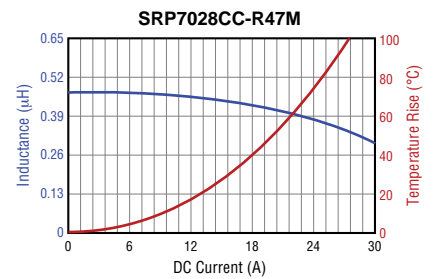
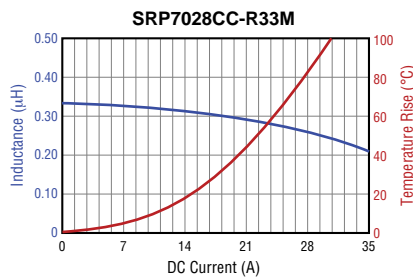
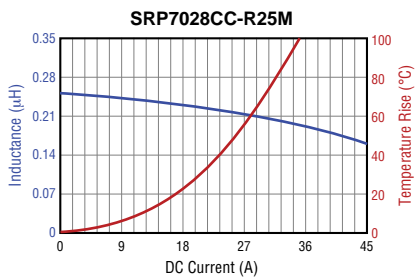
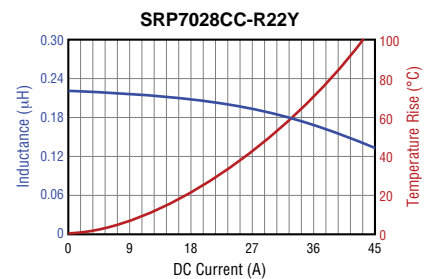
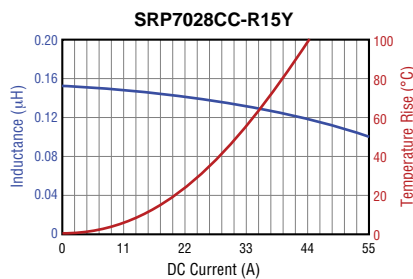
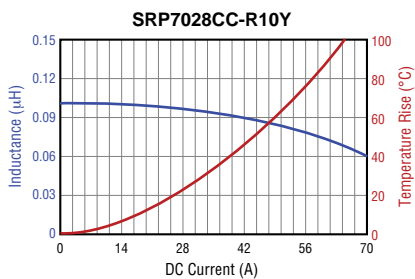


## How to Order

**SRP7028CC - R10Y**

Model   
Value Code (see table)

## L vs. IDC and Temperature vs. IDC Curves



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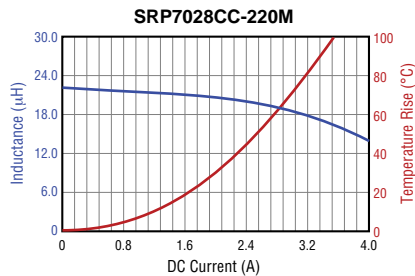
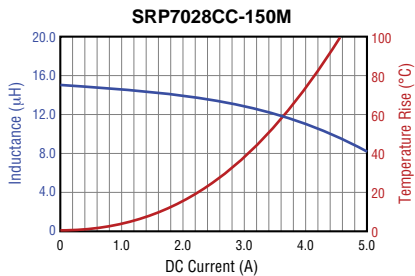
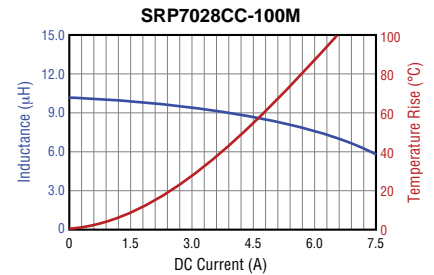
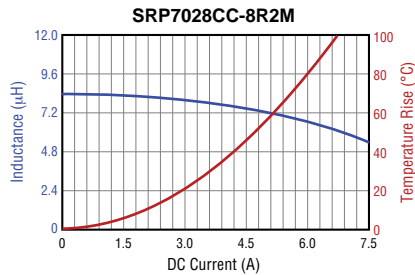
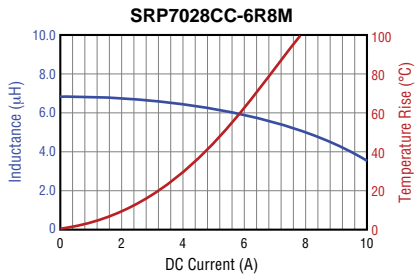
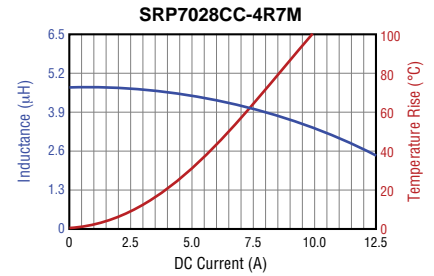
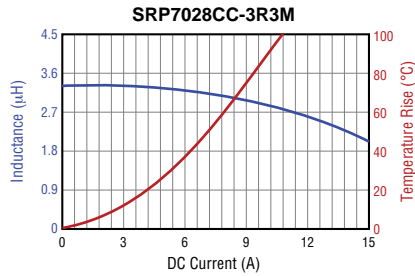
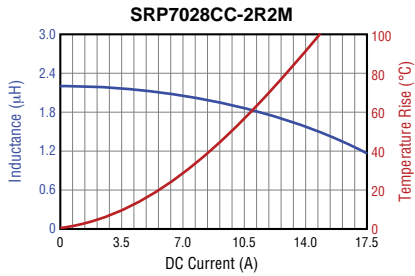
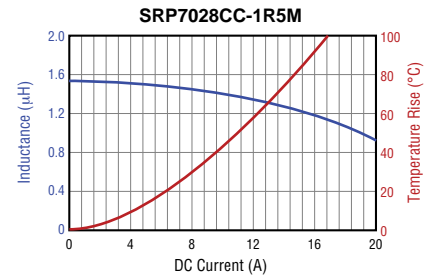
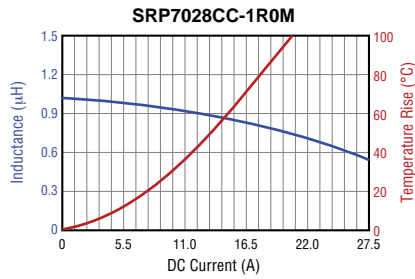
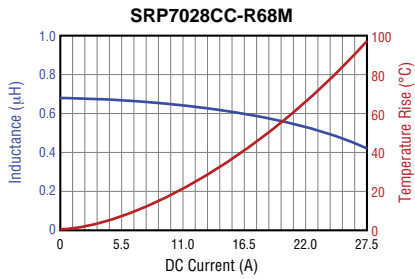
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# SRP7028CC Series - Shielded Power Inductors



## L vs. IDC and Temperature vs. IDC Curves (continued)



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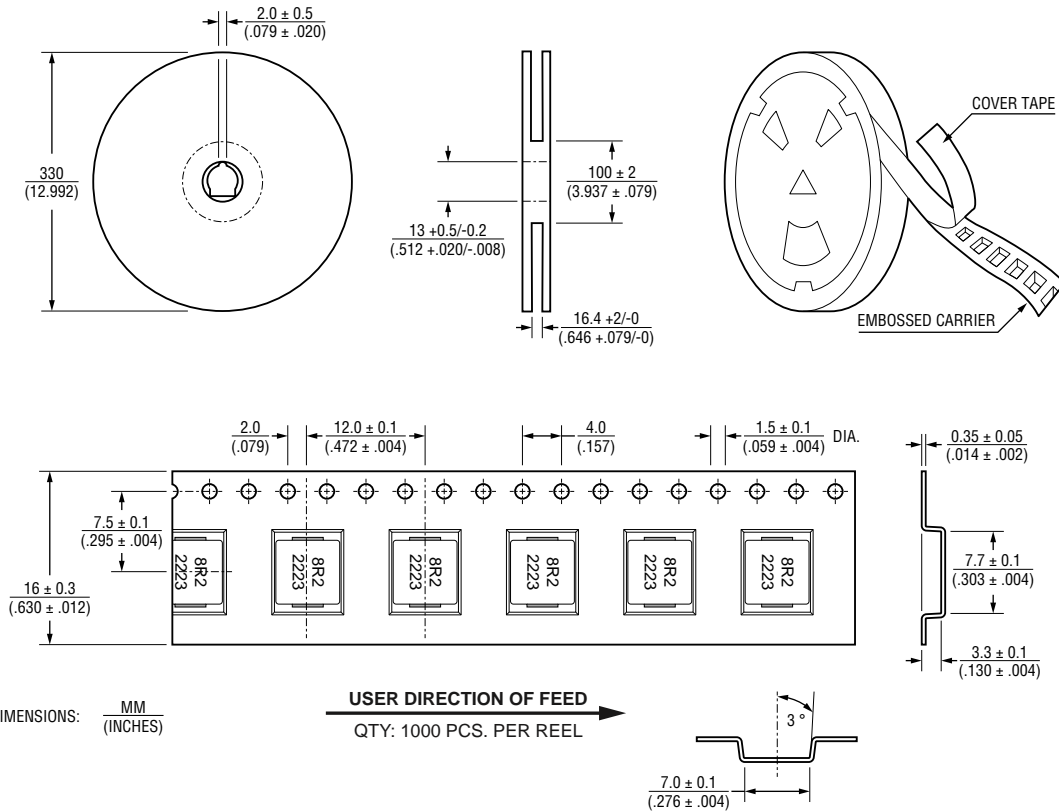
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# SRP7028CC Series - Shielded Power Inductors

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## Packaging Specifications



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