



## Features

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

## SRP1245CC 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.	Terminal Type
	L (μH)	Tol. %							
SRP1245CC-R15M	0.15	20	30	175	0.36	0.41	55	100	Non-Lead Frame
SRP1245CC-R22M	0.22	20	20	120	0.5	0.55	48	95	
SRP1245CC-R36M	0.36	20	20	80	0.75	0.83	41	80	
SRP1245CC-R47M	0.47	20	20	70	0.96	1.15	38	65	
SRP1245CC-R68M	0.68	20	20	50	1.4	1.6	32	54	
SRP1245CC-1R0M	1.00	20	20	40	2	2.4	30	50	Lead Frame
SRP1245CC-1R5M	1.50	20	20	30	3	3.5	27	48	
SRP1245CC-2R2M	2.20	20	20	24	4.3	5	25	40	
SRP1245CC-3R3M	3.30	20	20	22	7.3	8.4	20	32	
SRP1245CC-4R7M	4.70	20	20	15	11.4	15	14	27	
SRP1245CC-6R8M	6.80	20	20	12	14.5	16.7	12	23	
SRP1245CC-8R2M	8.20	20	20	11	18.6	21.5	11.5	20	
SRP1245CC-100M	10.00	20	20	10	21.4	25.5	11	17	
SRP1245CC-150M	15.00	20	20	8	32.6	38	9	13	
SRP1245CC-220M	22.00	20	20	6	50	58	7.5	11	

### Additional Information

Click these links for more information:



### 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

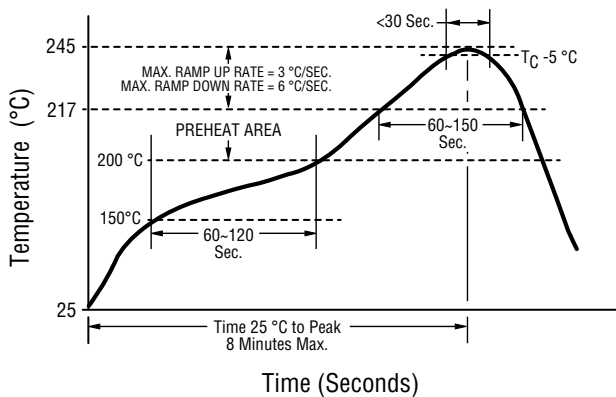
Core ..... Carbonyl powder

Wire ..... Enameled copper

Terminal Finish ..... Sn

Packaging ..... 500 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> )	245 °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.

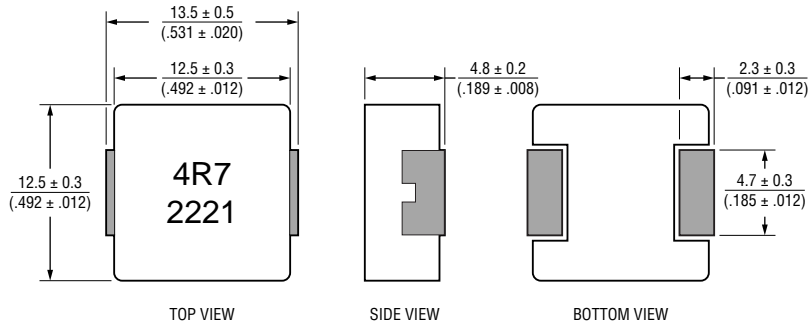
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# SRP1245CC Series - Shielded Power Inductors

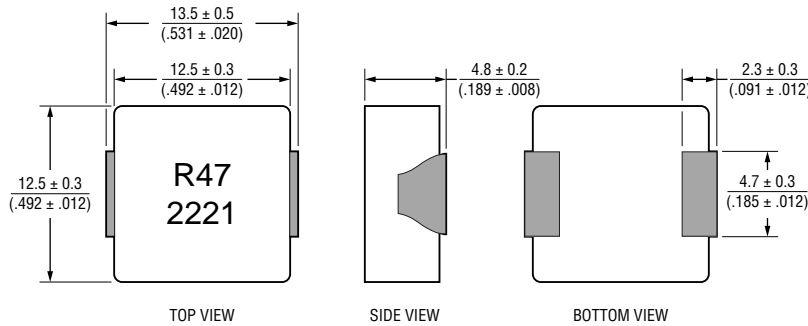
**BOURNS®**

## Product Dimensions

### Lead Frame Terminal

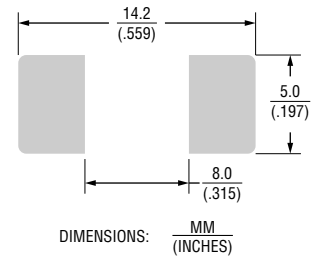


### Non-Lead Frame Terminal

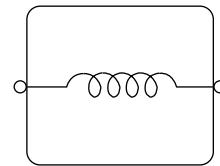


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Recommended Layout



## Electrical Schematic



## How to Order

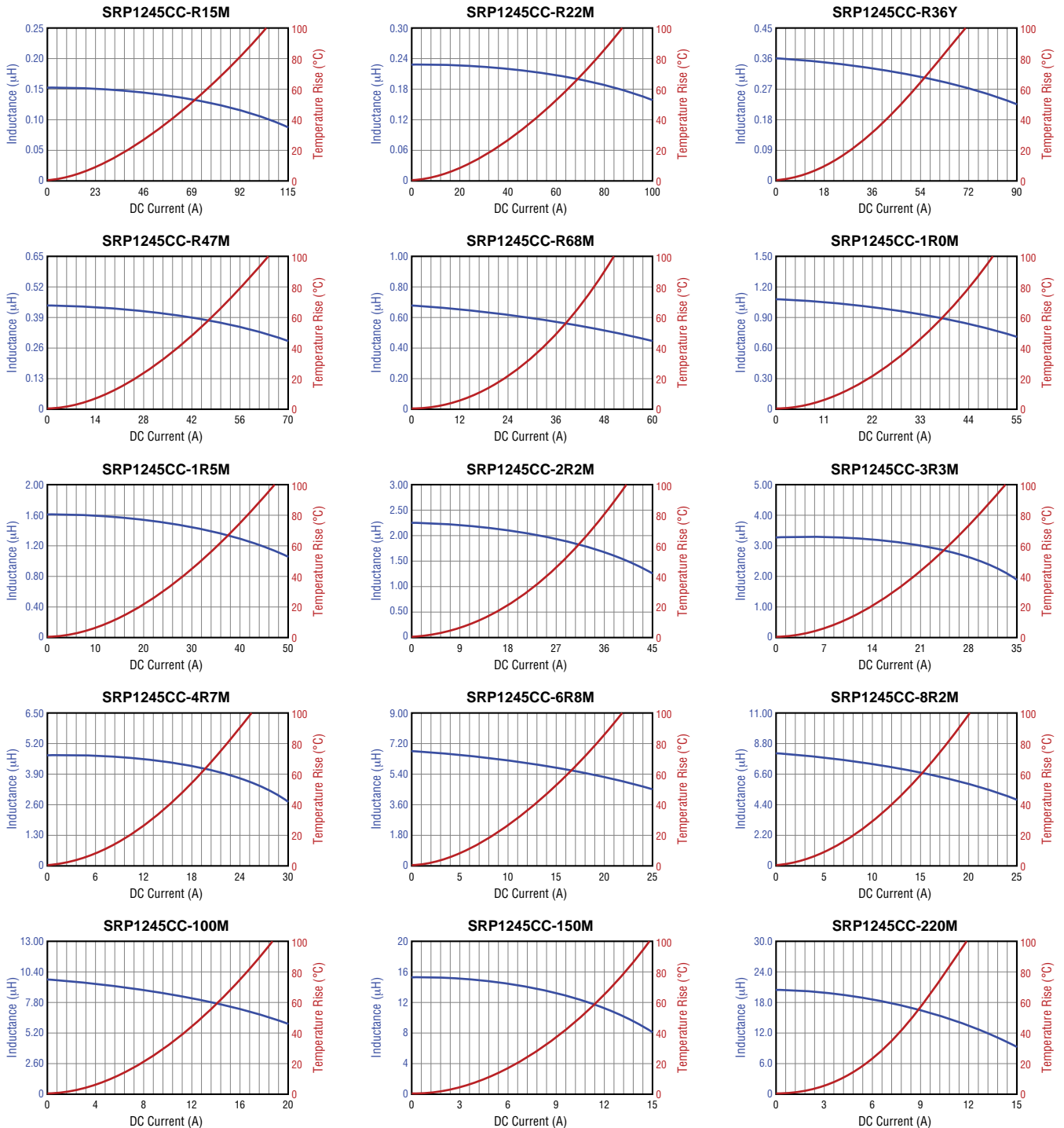
**SRP1245CC - R15M**

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

# SRP1245CC Series - Shielded Power Inductors



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

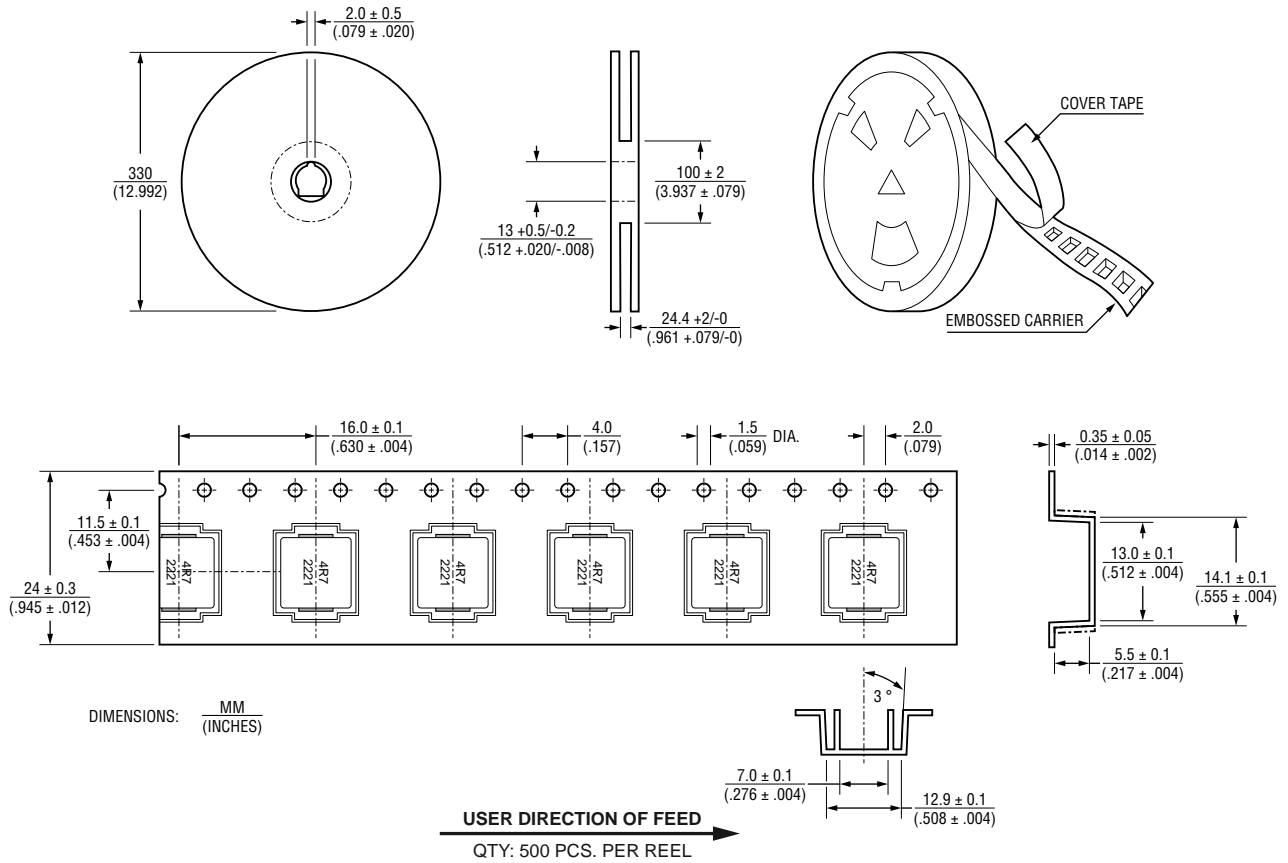


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# SRP1245CC Series - Shielded Power Inductors

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## Packaging Specifications



**BOURNS®**

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