



## Features

- Shielded construction
- Inductance range: 10 to 1000  $\mu\text{H}$
- Heating current up to 2.1 A
- Dimensions: 7.3 x 7.3 x 4.5 mm
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## SRR0745A Series – Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 1 kHz / 1 V		DCR ( $\Omega$ ) Max.	I rms (A)	I sat (A)	***K-Factor
	L ( $\mu\text{H}$ )	Tol. (%)				
SRR0745A-100M	10	$\pm 20$	0.052	2.1	2.5	112
SRR0745A-120M	12	$\pm 20$	0.062	2.0	2.3	98
SRR0745A-150M	15	$\pm 20$	0.075	1.9	2.1	88
SRR0745A-180M	18	$\pm 20$	0.09	1.8	1.95	83
SRR0745A-220M	22	$\pm 20$	0.096	1.65	1.75	72
SRR0745A-270M	27	$\pm 20$	0.13	1.45	1.62	66
SRR0745A-330M	33	$\pm 20$	0.15	1.35	1.45	59
SRR0745A-390M	39	$\pm 20$	0.19	1.17	1.3	55
SRR0745A-470M	47	$\pm 20$	0.21	1.05	1.2	50
SRR0745A-560M	56	$\pm 20$	0.24	0.95	1.1	47
SRR0745A-680M	68	$\pm 20$	0.3	0.86	0.96	41
SRR0745A-820M	82	$\pm 20$	0.4	0.78	0.9	38
SRR0745A-101M	100	$\pm 20$	0.45	0.7	0.78	34
SRR0745A-121M	120	$\pm 20$	0.55	0.6	0.7	32
SRR0745A-151M	150	$\pm 20$	0.76	0.48	0.58	29
SRR0745A-181M	180	$\pm 20$	0.82	0.46	0.54	26
SRR0745A-221M	220	$\pm 20$	0.95	0.42	0.5	23
SRR0745A-271M	270	$\pm 20$	1.2	0.38	0.46	22
SRR0745A-331M	330	$\pm 20$	1.5	0.34	0.4	20
SRR0745A-391M	390	$\pm 20$	1.85	0.32	0.36	18
SRR0745A-471M	470	$\pm 20$	2.2	0.29	0.34	16
SRR0745A-561M	560	$\pm 20$	2.6	0.26	0.3	15
SRR0745A-681M	680	$\pm 20$	2.8	0.24	0.28	13
SRR0745A-821M	820	$\pm 20$	3.5	0.22	0.26	12
SRR0745A-102M	1000	$\pm 20$	4.1	0.2	0.24	11

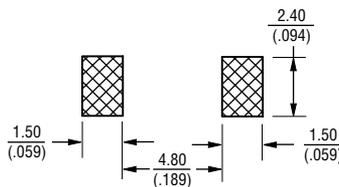
\*\*\*K-Factor: To calculate core flux density,  $B_p$ -p (gauss) =  $K \times L(\mu\text{H}) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

### How to Order

**SRR0745A - 100M**

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

### Recommended Layout



### Additional Information

Click these links for more information:



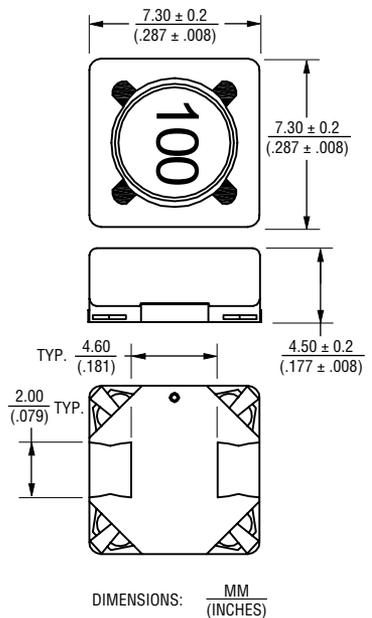
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -40 °C to +125 °C  
Temperature Rise ..... 40 °C typ. at rated I<sub>rms</sub>  
Inductance Drop ..... 25 % at I<sub>sat</sub>

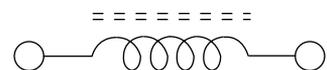
### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Sn  
Packaging ..... 1000 pcs. per reel

### Product Dimensions



### Electrical Schematic



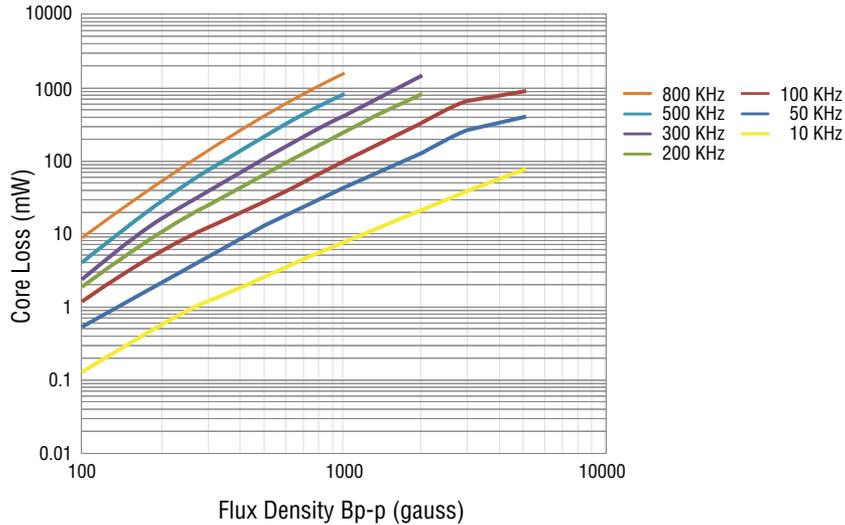
**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* 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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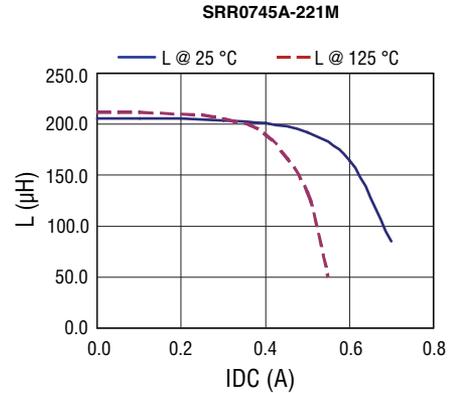
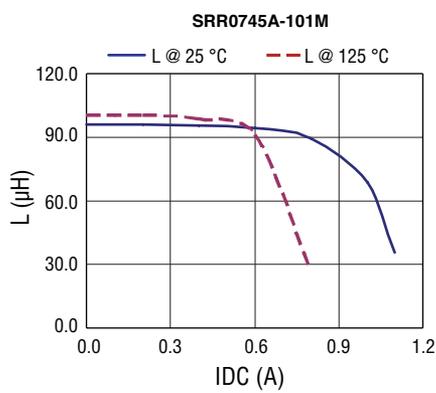
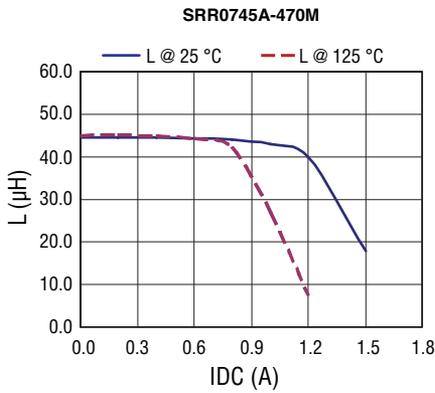
# SRR0745A Series – Shielded Power Inductors



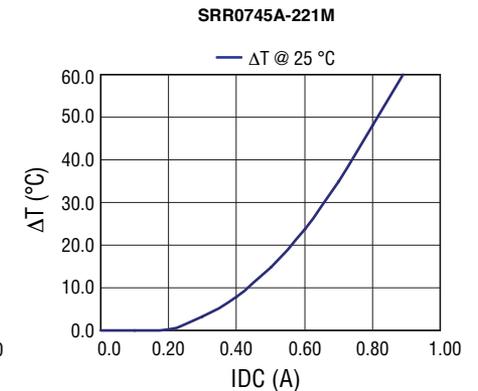
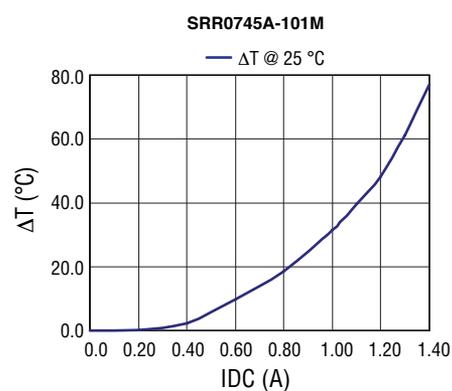
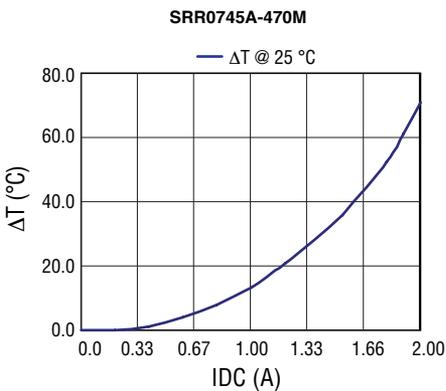
## Core Loss vs. Flux Density



## Inductance vs. IDC



## Temperature Rise vs. IDC



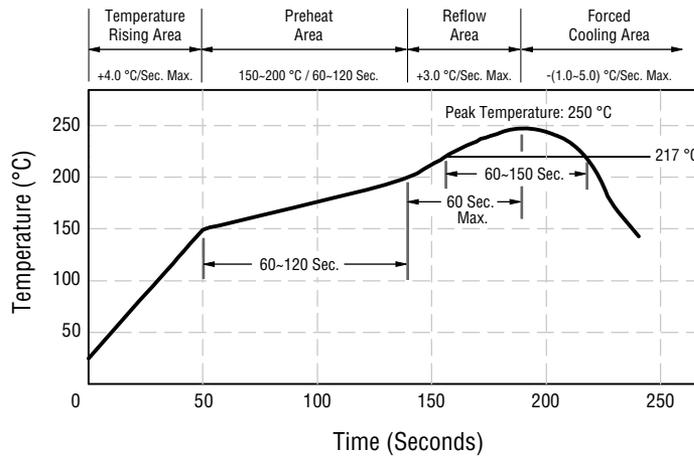
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# SRR0745A Series – Shielded Power Inductors

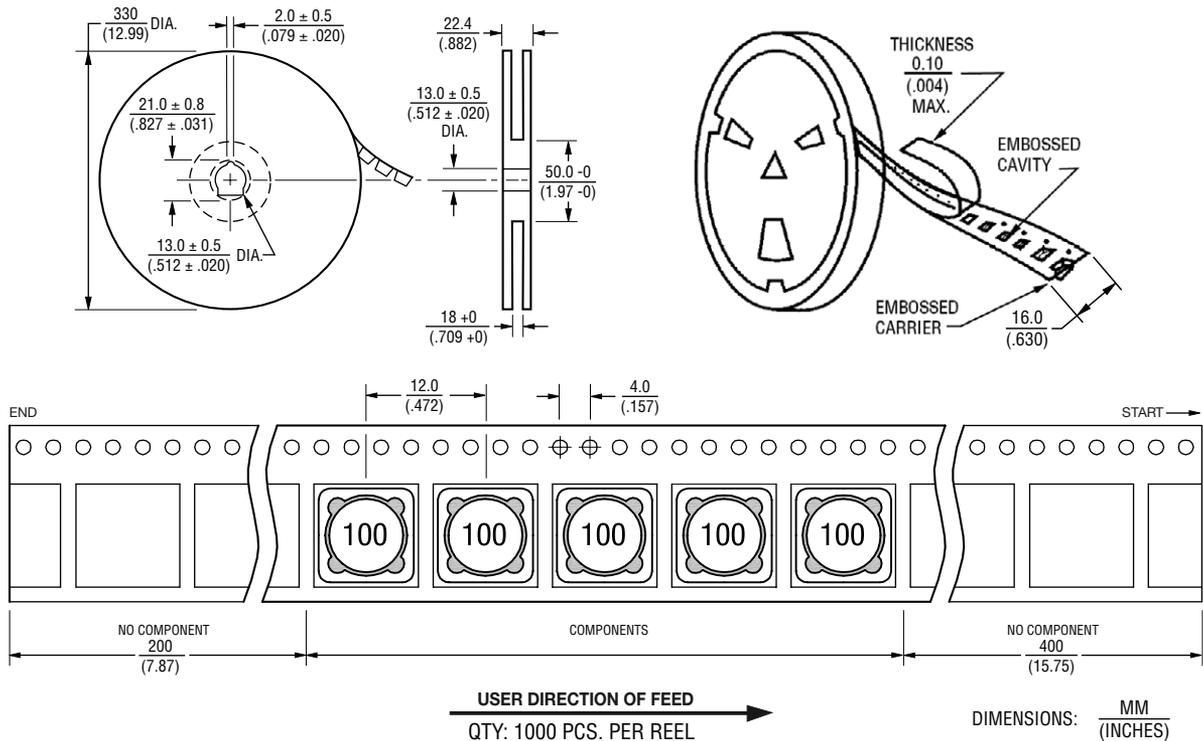


## Soldering Profile

Peak Temperature: 250 °C max.  
 Max. Peak Temperature -5 °C: 30 sec. max.  
 Max. Time Above 217 °C: 60~150 sec. max.



## Packaging Specifications



REV. 06/25

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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