



## Features

- Available in E12 series
- Height of 2.9 mm
- Current rating up to 2.1 A
- RoHS compliant\*

## Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

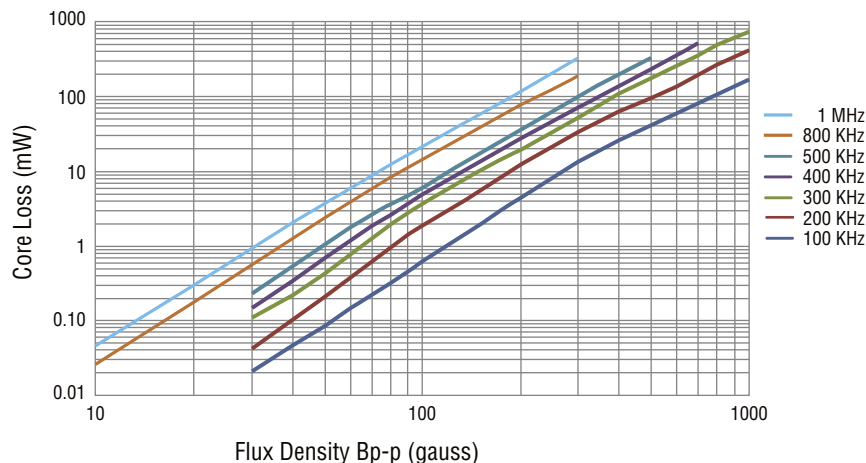
# SRR0905 Series - Shielded SMD Power Inductors

## Electrical Specifications

Bourns Part No.	Inductance		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	DCR Max. ( $\Omega$ )	Idc (A)	**K-Factor
	$\mu$ H	Tol. %						
SRR0905-100M	10	$\pm 20$	39	2.52	29	0.06	2.1	77
SRR0905-120M	12	$\pm 20$	40	2.52	26	0.07	1.9	65
SRR0905-150M	15	$\pm 20$	35	2.52	24	0.07	1.7	57
SRR0905-180M	18	$\pm 20$	39	2.52	21	0.08	1.6	53
SRR0905-220M	22	$\pm 20$	35	2.52	18	0.08	1.4	48
SRR0905-270M	27	$\pm 20$	35	2.52	17	0.10	1.3	43
SRR0905-330Y	33	$\pm 15$	27	2.52	14	0.11	1.2	41
SRR0905-390Y	39	$\pm 15$	31	2.52	14	0.12	1.1	36
SRR0905-470Y	47	$\pm 15$	27	2.52	11	0.14	1.0	32
SRR0905-560Y	56	$\pm 15$	26	2.52	11	0.19	0.93	30
SRR0905-680Y	68	$\pm 15$	26	2.52	10	0.21	0.85	27
SRR0905-820Y	82	$\pm 15$	26	2.52	9	0.28	0.79	26
SRR0905-101K	100	$\pm 10$	29	0.796	8	0.34	0.72	22
SRR0905-121K	120	$\pm 10$	31	0.796	7	0.37	0.63	21
SRR0905-151K	150	$\pm 10$	24	0.796	6	0.51	0.55	18
SRR0905-181K	180	$\pm 10$	24	0.796	5	0.57	0.50	16
SRR0905-221K	220	$\pm 10$	27	0.796	5	0.78	0.47	15
SRR0905-271K	270	$\pm 10$	30	0.796	5	0.87	0.41	13
SRR0905-331K	330	$\pm 10$	29	0.796	4	1.20	0.37	13
SRR0905-391K	390	$\pm 10$	26	0.796	3	1.34	0.35	11
SRR0905-471K	470	$\pm 10$	26	0.796	3	1.50	0.33	10

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

## Core Loss vs. Flux Density



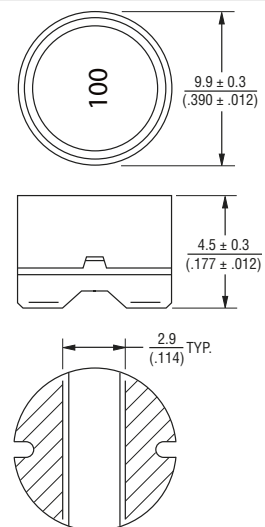
## General Specifications

Inductance Test Frequency/Voltage  
 SRR0905-100M to -820Y.. 2.52 MHz/1 V  
 SRR0905-101K to 471K ..... 1 kHz/1 V  
 Reflow Soldering .. 230 °C, 50 sec. max.  
 Operating Temperature  
 ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C for 5 sec.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

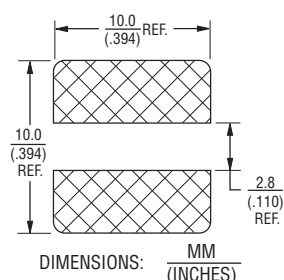
## Materials

Core Material..... Ferrite DR & RI  
 Wire..... Enameled copper  
 Terminal..... Ag/Ni/Sn  
 Rated Current  
 ..... Ind. drop of 10 % typ. at Isat  
 Temperature Rise  
 ..... 15 °C typ. at rated Irms  
 Packaging..... 800 pcs. per reel

## Product Dimensions



## Recommended Layout



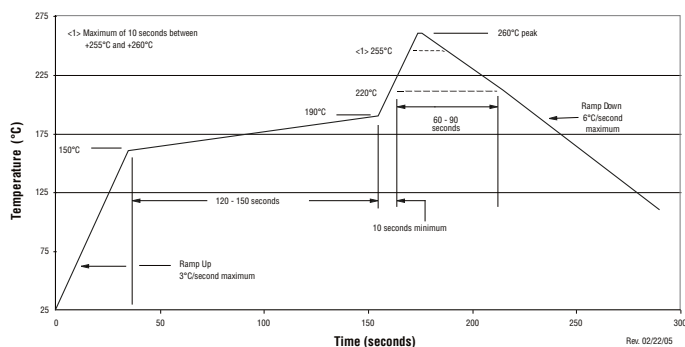
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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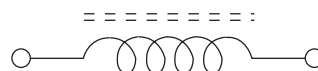
# SRR0905 Series - Shielded SMD Power Inductors

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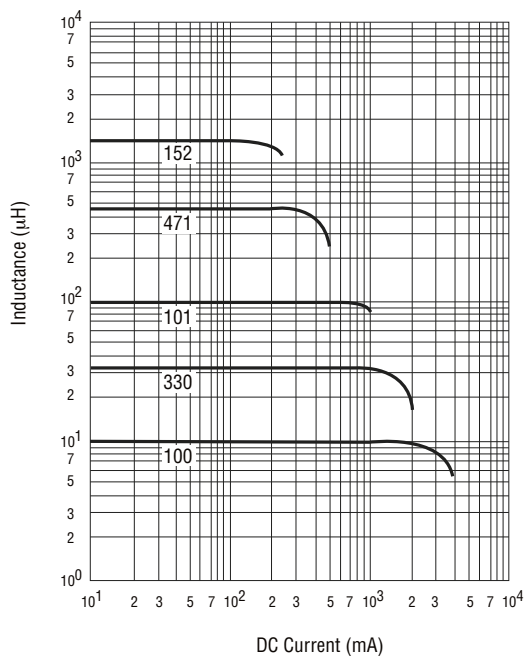
## Soldering Profile



## Schematic



## Inductance vs. Current



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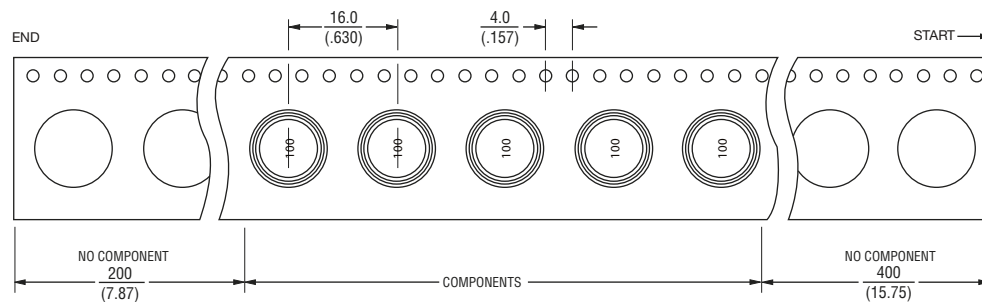
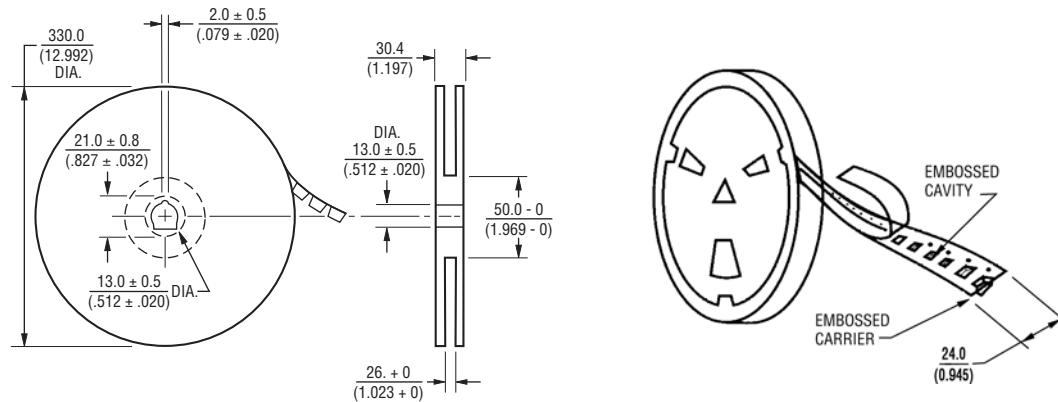
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**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 800 PCS. PER REEL

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

REV. 03/18

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Users should verify actual device performance in their specific applications.

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