



**THE DATASHEET OF  
SRR0905-270M**





### 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

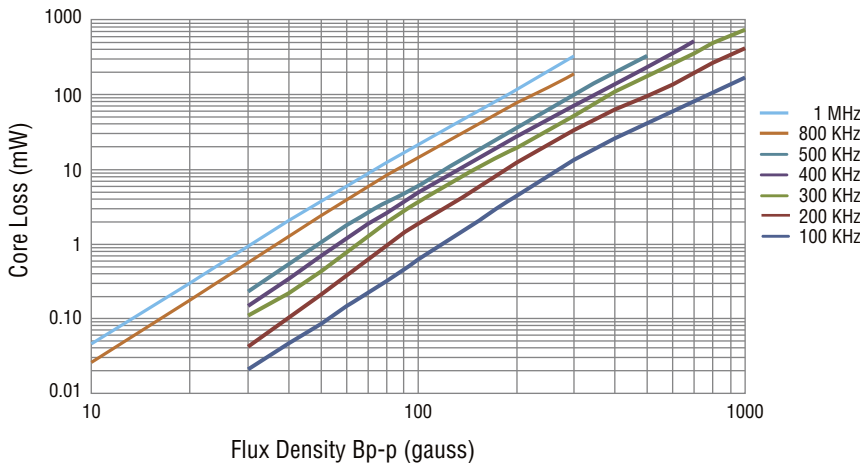
## SRR0905 Series - Shielded SMD Power Inductors

### 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



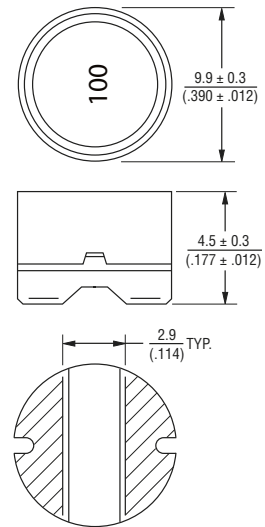
### General Specifications

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

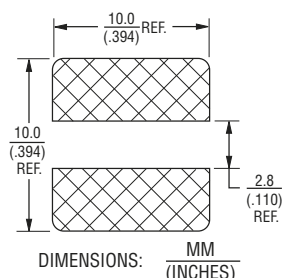
### Materials

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



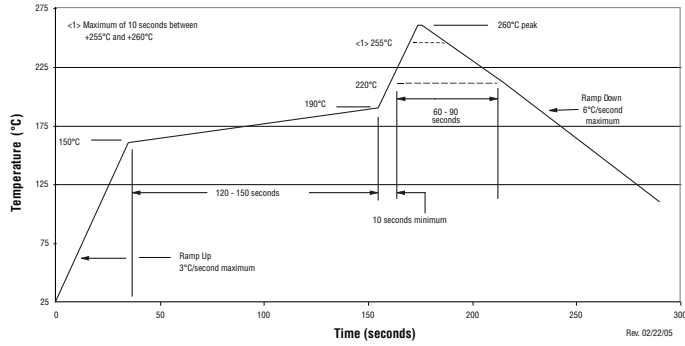
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. 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)

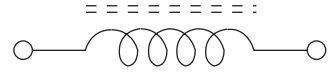
# SRR0905 Series - Shielded SMD Power Inductors

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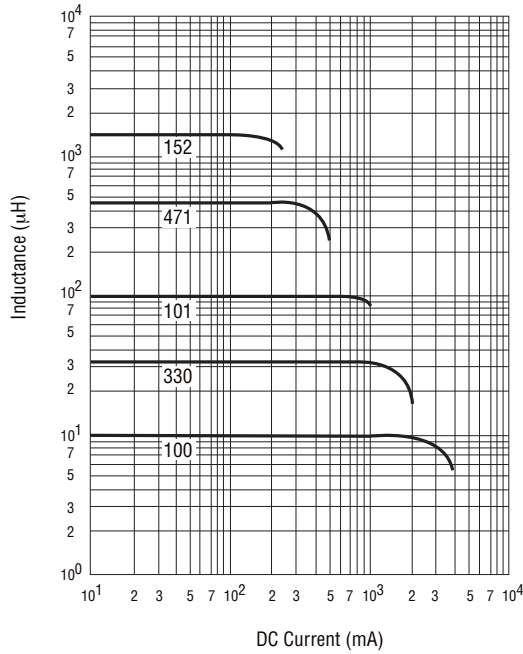
## Soldering Profile



## Schematic



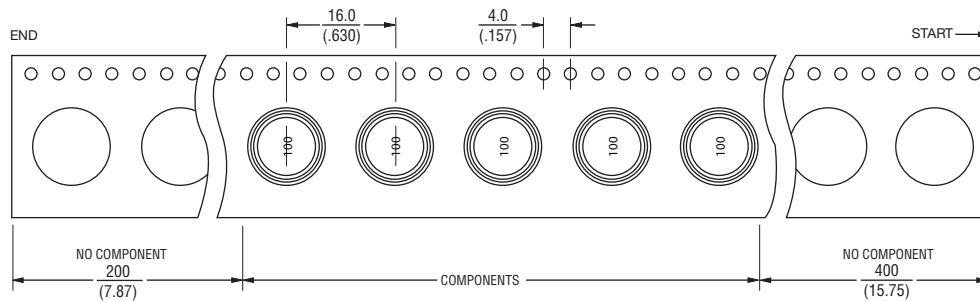
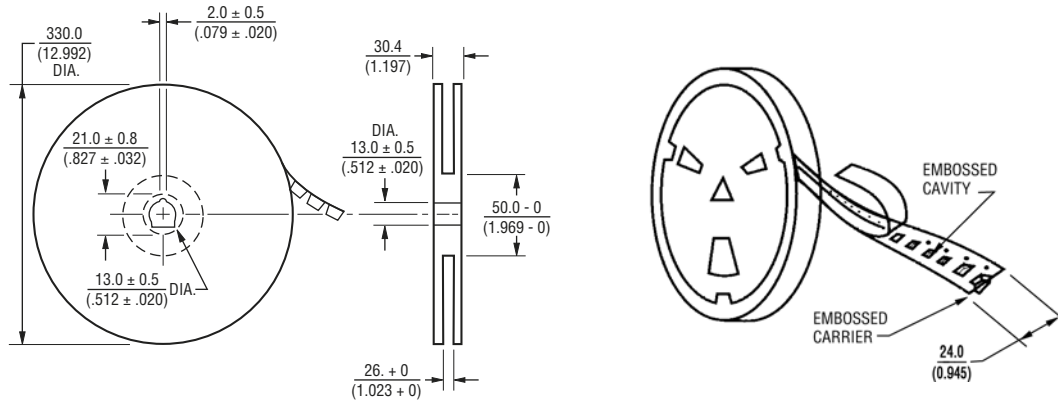
## Inductance vs. Current



# SRR0905 Series - Shielded SMD Power Inductors

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## Packaging Specifications



USER DIRECTION OF FEED →

QTY: 800 PCS. PER REEL

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

REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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