



**THE DATASHEET OF  
SRR1205-270ML**





### Features

- E6 series optional
- Unit height of 5.5 mm
- Current rating up to 5 A
- J-hook leads
- RoHS compliant\*

### Applications

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

## SRR1205 Series - Shielded High Power Inductors

### Electrical Characteristics

Bourns Part No.	Inductance 1 KHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (mΩ)	I rms Max. (A)	I sat Typ. (A)	**K-Factor
	(μH)	Tol. %							
SRR1205-2R5ML	2.5	± 20	18	7.96M	27.0	24	5.00	10.00	75
SRR1205-3R3ML	3.3	± 20	20	7.96M	25.0	30	4.50	9.20	65
SRR1205-5R0ML	5.0	± 20	20	7.96M	21.0	35	4.00	8.20	58
SRR1205-7R5ML	7.5	± 20	20	7.96M	17.0	40	3.50	7.80	47
SRR1205-100ML	10	± 20	21	2.52M	15.0	54	3.00	6.00	39
SRR1205-120ML	12	± 20	20	2.52M	13.0	65	2.80	5.60	36
SRR1205-150ML	15	± 20	20	2.52M	11.0	70	2.70	5.30	34
SRR1205-180ML	18	± 20	20	2.52M	10.0	82	2.60	4.80	30
SRR1205-220ML	22	± 20	19	2.52M	9.0	95	2.40	4.60	26
SRR1205-270ML	27	± 20	18	2.52M	8.0	120	2.00	4.00	23
SRR1205-330ML	33	± 20	18	2.52M	8.0	145	1.80	3.50	22
SRR1205-390ML	39	± 20	18	2.52M	7.5	160	1.65	3.20	20
SRR1205-500YL	50	± 15	18	2.52M	7.0	200	1.50	2.80	17
SRR1205-560YL	56	± 15	18	2.52M	7.0	240	1.40	2.50	17
SRR1205-680YL	68	± 15	17	2.52M	6.5	280	1.30	2.40	15
SRR1205-750YL	75	± 15	17	2.52M	6.0	330	1.20	2.20	14
SRR1205-101KL	100	± 10	12	0.796M	5.0	400	1.00	2.00	12
SRR1205-121KL	120	± 10	10	0.796M	4.5	500	0.90	1.60	11
SRR1205-151KL	150	± 10	10	0.796M	4.0	580	0.80	1.50	10
SRR1205-181KL	180	± 10	9	0.796M	3.5	750	0.70	1.40	9
SRR1205-221KL	220	± 10	9	0.796M	3.0	840	0.65	1.30	8
SRR1205-271KL	270	± 10	9	0.796M	2.5	1000	0.60	1.00	7
SRR1205-331KL	330	± 10	7	0.796M	2.0	1340	0.54	0.88	7
SRR1205-391KL	390	± 10	7	0.796M	2.0	1500	0.50	0.80	6
SRR1205-471KL	470	± 10	7	0.796M	2.0	1980	0.45	0.72	6
SRR1205-561KL	560	± 10	6	0.796M	1.5	2200	0.40	0.65	5
SRR1205-681KL	680	± 10	6	0.796M	1.5	2400	0.35	0.60	5
SRR1205-821KL	820	± 10	5	0.796M	1.0	3000	0.30	0.57	4

\*\*K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

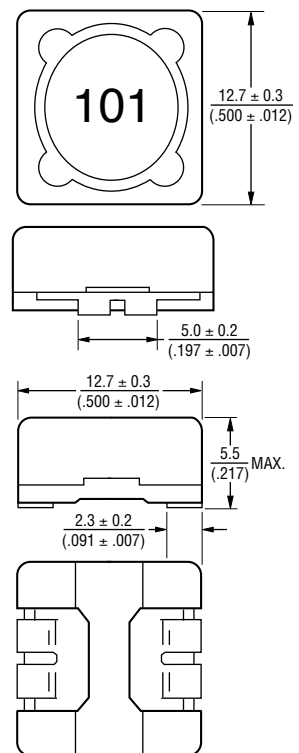
### General Specifications

Test Voltage ..... 1 V  
 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.  
 Rated Current .....  
 .....Ind. drop of 10 % typ. at Isat  
 Temperature Rise .....40 °C max. at rated Irms

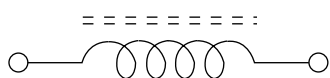
### Materials

Core..... Ferrite DR & RI core  
 Wire ..... Enameled copper  
 Base ..... LCP E4008  
 Terminal ..... Cu/Ni/Sn  
 Packaging..... 600 pcs. per reel

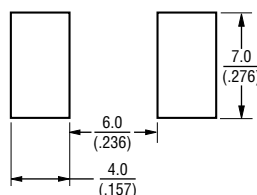
### Product Dimensions



### Schematic



### 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)

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

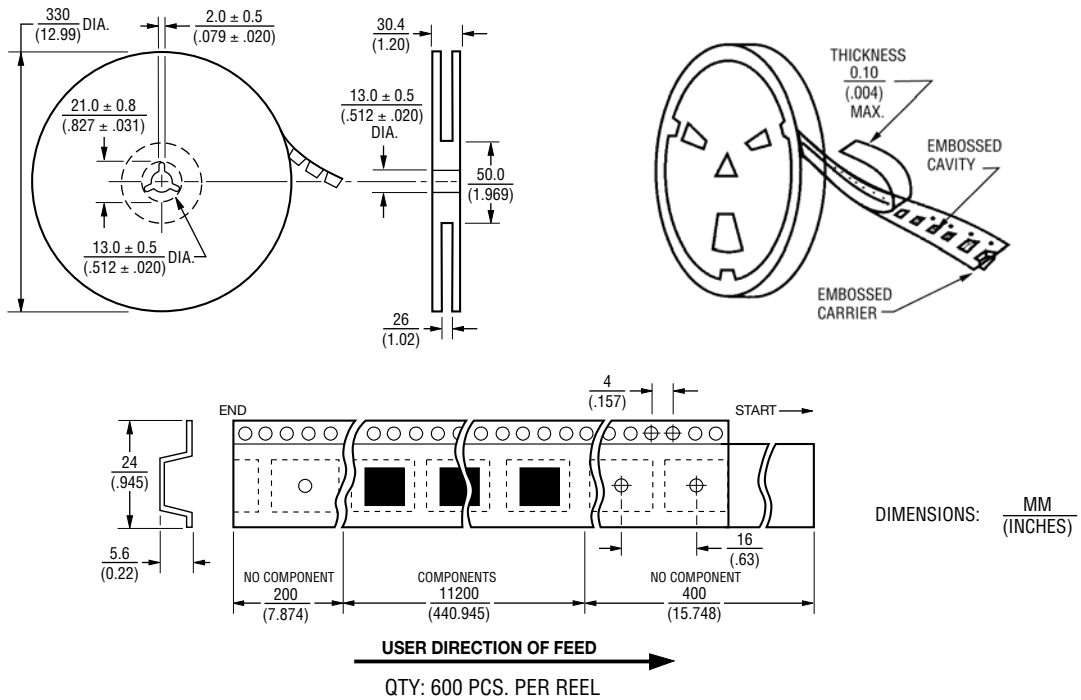
# SRR1205 Series - Shielded High Power Inductors

**BOURNS®**

## Core Loss vs. Flux Density



## Packaging Specifications



REV. 03/17

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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