



## 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

**BOURNS®**

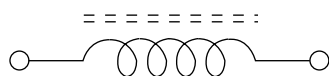
## SRR1205 Series - Shielded High Power Inductors

### 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,  $B_p$ -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.

### Schematic



### Recommended Layout



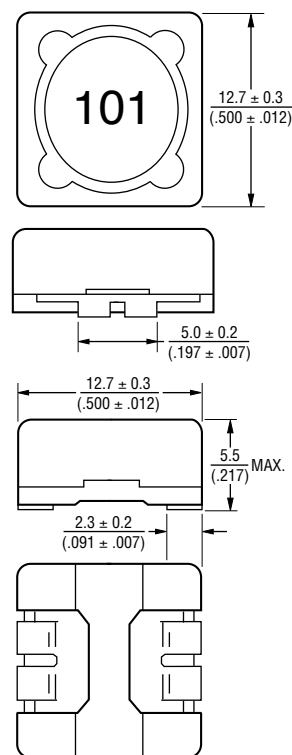
### General Specifications

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 ..... Enamelled copper  
 Base ..... LCP E4008  
 Terminal ..... Cu/Ni/Sn  
 Packaging ..... 600 pcs. per reel

### Product Dimensions



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



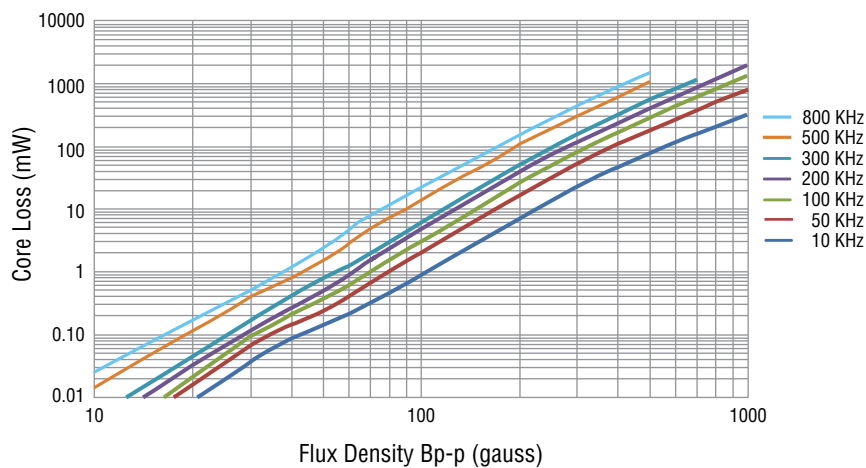
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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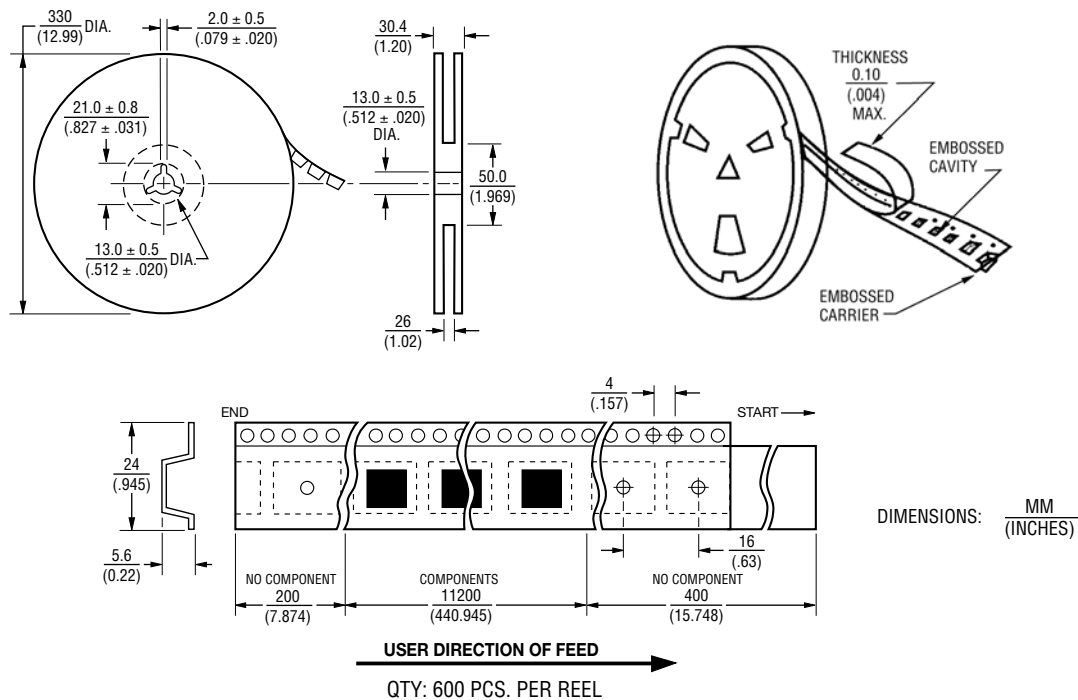
# SRR1205 Series - Shielded High Power Inductors

**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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