



## Features

- Shielded construction
- Inductance range: 1.5 to 330  $\mu$ H
- Heating current up to 7 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

## SRU1048A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

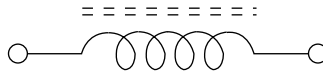
| Bourns Part Number | Inductance @ 100 KHz / 1 V |          | Q (Ref.) | Test Freq. (MHz) | SRF (MHz) Typ. | DCR (m $\Omega$ ) Max. | I rms (A) | I sat (A) |
|--------------------|----------------------------|----------|----------|------------------|----------------|------------------------|-----------|-----------|
|                    | L ( $\mu$ H)               | Tol. (%) |          |                  |                |                        |           |           |
| SRU1048A-1R5Y      | 1.5                        | $\pm 30$ | 14       | 7.96             | 70             | 5.8                    | 7.0       | 7.2       |
| SRU1048A-2R2Y      | 2.2                        | $\pm 30$ | 14       | 7.96             | 55             | 7.2                    | 6.5       | 6.3       |
| SRU1048A-3R0Y      | 3.0                        | $\pm 30$ | 14       | 7.96             | 40             | 10                     | 6.2       | 6.0       |
| SRU1048A-4R7Y      | 4.7                        | $\pm 30$ | 12       | 7.96             | 30             | 12.5                   | 5.5       | 4.75      |
| SRU1048A-6R8Y      | 6.8                        | $\pm 30$ | 10       | 7.96             | 20             | 18                     | 4.8       | 4.1       |
| SRU1048A-8R2Y      | 8.2                        | $\pm 30$ | 8        | 7.96             | 18             | 20                     | 4.6       | 3.8       |
| SRU1048A-100Y      | 10                         | $\pm 30$ | 26       | 2.52             | 16             | 25                     | 4.5       | 3.7       |
| SRU1048A-150Y      | 15                         | $\pm 30$ | 30       | 2.52             | 14             | 40                     | 3.2       | 2.7       |
| SRU1048A-220Y      | 22                         | $\pm 30$ | 22       | 2.52             | 12             | 55                     | 2.6       | 2.0       |
| SRU1048A-330Y      | 33                         | $\pm 30$ | 24       | 2.52             | 10             | 84                     | 2.1       | 1.7       |
| SRU1048A-470Y      | 47                         | $\pm 30$ | 26       | 2.52             | 8              | 120                    | 1.7       | 1.5       |
| SRU1048A-560Y      | 56                         | $\pm 30$ | 26       | 2.52             | 7              | 145                    | 1.6       | 1.4       |
| SRU1048A-680Y      | 68                         | $\pm 30$ | 24       | 2.52             | 6              | 170                    | 1.4       | 1.25      |
| SRU1048A-820Y      | 82                         | $\pm 30$ | 24       | 2.52             | 5.5            | 200                    | 1.3       | 1.1       |
| SRU1048A-101Y      | 100                        | $\pm 30$ | 26       | 0.796            | 5              | 220                    | 1.2       | 1.0       |
| SRU1048A-151Y      | 150                        | $\pm 30$ | 24       | 0.796            | 4.5            | 305                    | 1.0       | 0.8       |
| SRU1048A-221Y      | 220                        | $\pm 30$ | 20       | 0.796            | 4              | 455                    | 0.8       | 0.7       |
| SRU1048A-331Y      | 330                        | $\pm 30$ | 18       | 0.796            | 3              | 640                    | 0.65      | 0.52      |

### How to Order

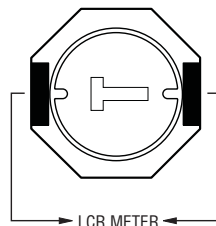
SRU1048A - 100Y

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

### Electrical Schematic



### Inductor Connection



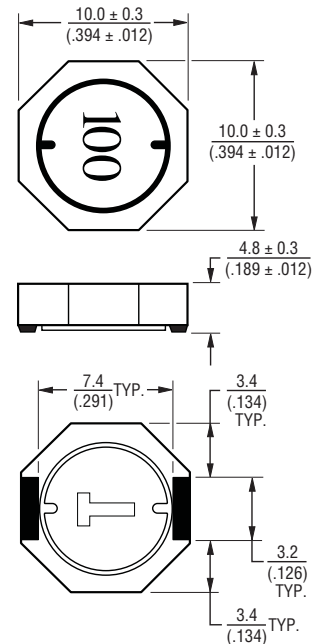
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -40 °C to +125 °C  
Resistance to Soldering Heat ..... +245 °C for 10 sec.  
Temperature Rise ..... 30 °C typ. at rated I rms  
Inductance Drop ..... 35 % typ. at I sat

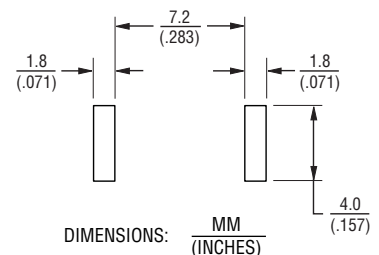
### Materials

Core ..... Ferrite  
Wire ..... Enamelled copper  
Terminal Finish ..... Ag/Ni/Sn  
Packaging ..... 600 pcs. per reel

### Product Dimensions



### Recommended Layout



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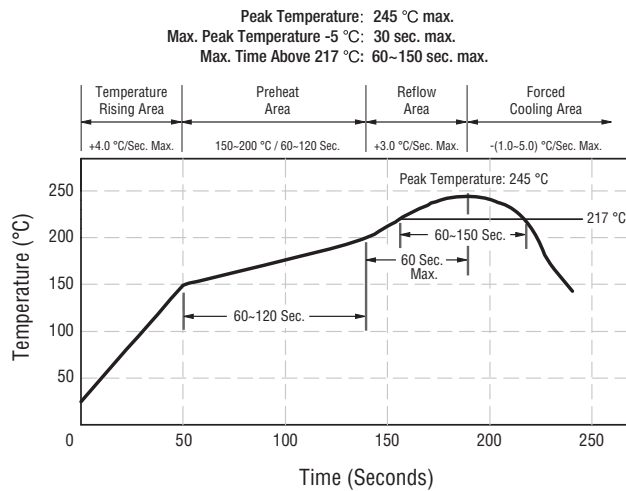
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
\*\*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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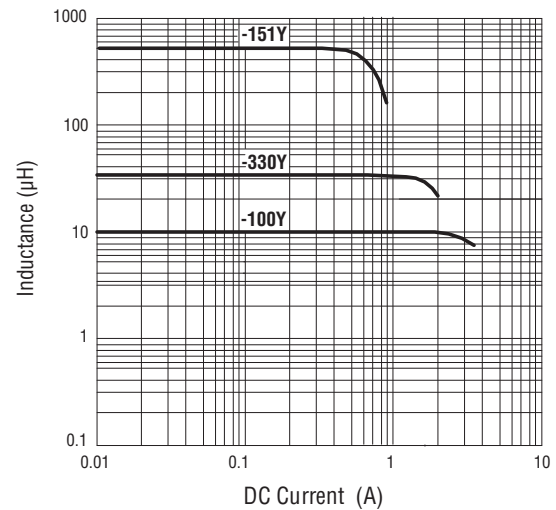
## SRU1048A Series - Shielded Power Inductors

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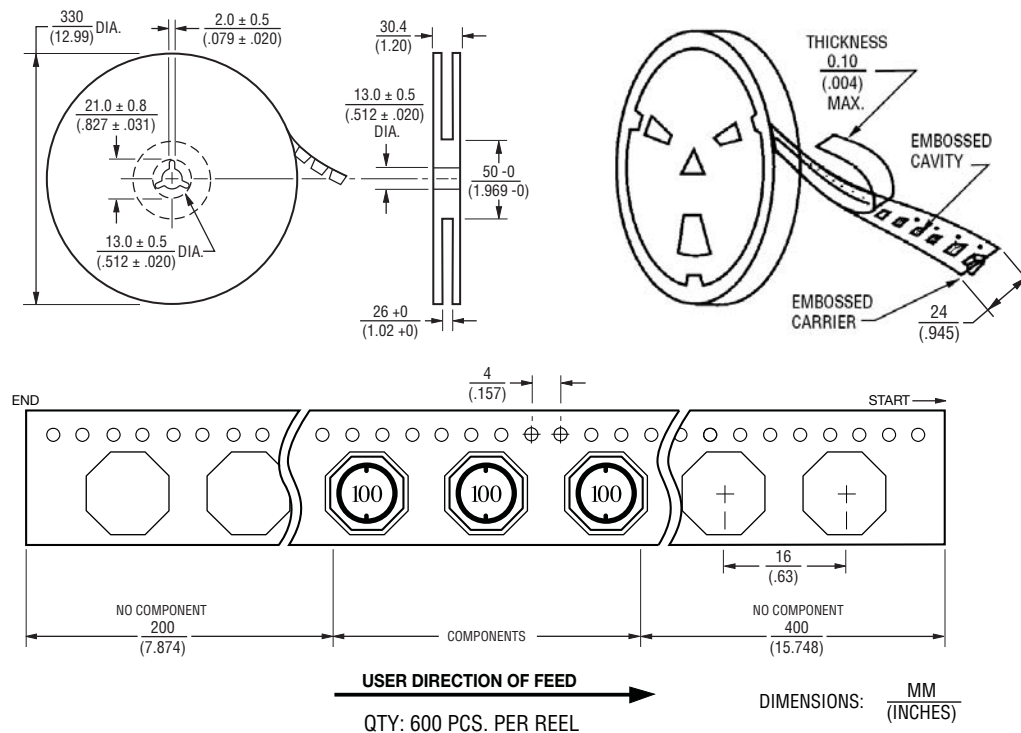
### Soldering Profile



### Inductance vs. DC Current Plot



### Packaging Specifications



08/13

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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