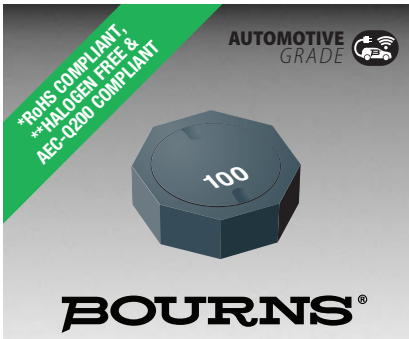




**THE DATASHEET OF  
SRU1038A-680Y**





## Features

- Shielded construction
- Inductance range: 1.5 to 330  $\mu$ H
- Heating current up to 7.2 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## SRU1038A Series - Shielded Power Inductors

### Electrical Specifications @ 25 °C

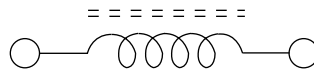
| Bourns Part Number | Inductance @ 100 KHz / 1 V |          | Q (Ref.) | Test Freq. (MHz) | SRF (MHz) Typ. | DCR (m $\Omega$ ) Max. | I rms (A) | I sat (A) |
|--------------------|----------------------------|----------|----------|------------------|----------------|------------------------|-----------|-----------|
|                    | L ( $\mu$ H)               | Tol. (%) |          |                  |                |                        |           |           |
| SRU1038A-1R5Y      | 1.5                        | $\pm 30$ | 14       | 7.96             | 65             | 7.5                    | 7.2       | 7.0       |
| SRU1038A-2R2Y      | 2.2                        | $\pm 30$ | 12       | 7.96             | 55             | 10.5                   | 6.8       | 6.5       |
| SRU1038A-3R5Y      | 3.5                        | $\pm 30$ | 14       | 7.96             | 35             | 15                     | 5.5       | 5.5       |
| SRU1038A-5R0Y      | 5.0                        | $\pm 30$ | 12       | 7.96             | 30             | 22                     | 4.6       | 4.8       |
| SRU1038A-6R2Y      | 6.2                        | $\pm 30$ | 12       | 7.96             | 25             | 24                     | 4.0       | 4.2       |
| SRU1038A-100Y      | 10                         | $\pm 30$ | 24       | 2.52             | 20             | 35                     | 3.8       | 3.6       |
| SRU1038A-150Y      | 15                         | $\pm 30$ | 24       | 2.52             | 16             | 50                     | 2.8       | 2.7       |
| SRU1038A-220Y      | 22                         | $\pm 30$ | 20       | 2.52             | 12             | 75                     | 2.2       | 2.3       |
| SRU1038A-330Y      | 33                         | $\pm 30$ | 22       | 2.52             | 10             | 112                    | 1.8       | 1.8       |
| SRU1038A-470Y      | 47                         | $\pm 30$ | 22       | 2.52             | 8              | 160                    | 1.65      | 1.6       |
| SRU1038A-680Y      | 68                         | $\pm 30$ | 24       | 2.52             | 7              | 216                    | 1.1       | 1.3       |
| SRU1038A-101Y      | 100                        | $\pm 30$ | 24       | 0.796            | 6              | 300                    | 1.0       | 1.1       |
| SRU1038A-151Y      | 150                        | $\pm 30$ | 20       | 0.796            | 5              | 476                    | 0.9       | 0.8       |
| SRU1038A-221Y      | 220                        | $\pm 30$ | 22       | 0.796            | 4              | 740                    | 0.65      | 0.65      |
| SRU1038A-331Y      | 330                        | $\pm 30$ | 20       | 0.796            | 3              | 1000                   | 0.55      | 0.52      |

### How to Order

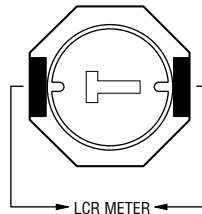
**SRU1038A - 100Y**

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

### Electrical Schematic



### Inductor Connection



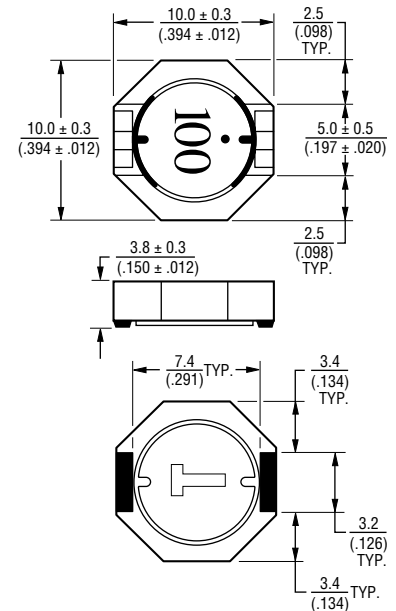
### General Specifications

Operating Temperature ..... -40 °C to +125 °C  
(Temperature rise included)  
Storage Temperature ..... -40 °C to +125 °C  
Temperature Rise ..... 40 °C typ. at rated I rms  
Inductance Drop ..... 35 % typ. at I sat

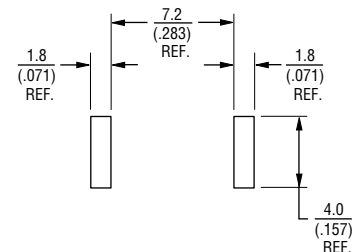
### Materials

Core ..... Ferrite  
Wire ..... Enameled copper  
Terminal Finish ..... Ag/Ni/Sn  
Packaging ..... 800 pcs. per reel

### Product Dimensions



### Recommended Layout



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

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

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

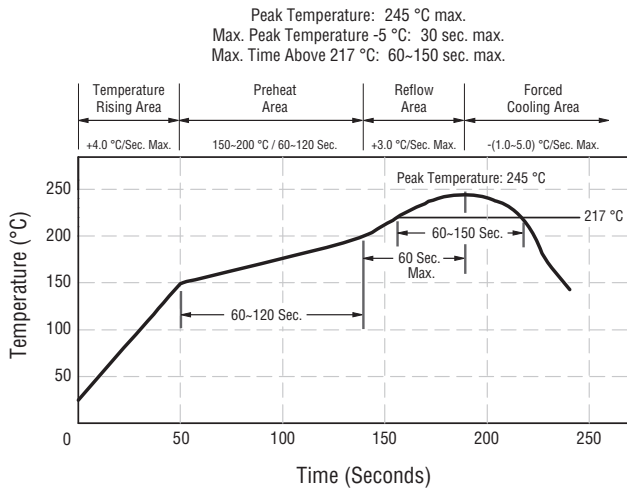
\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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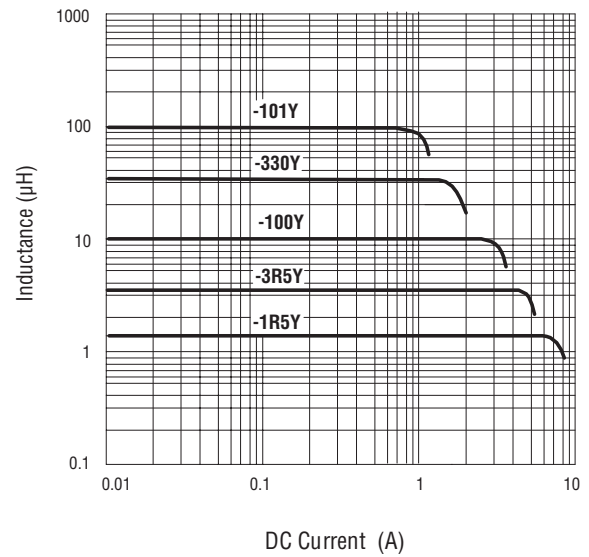
# SRU1038A Series - Shielded Power Inductors



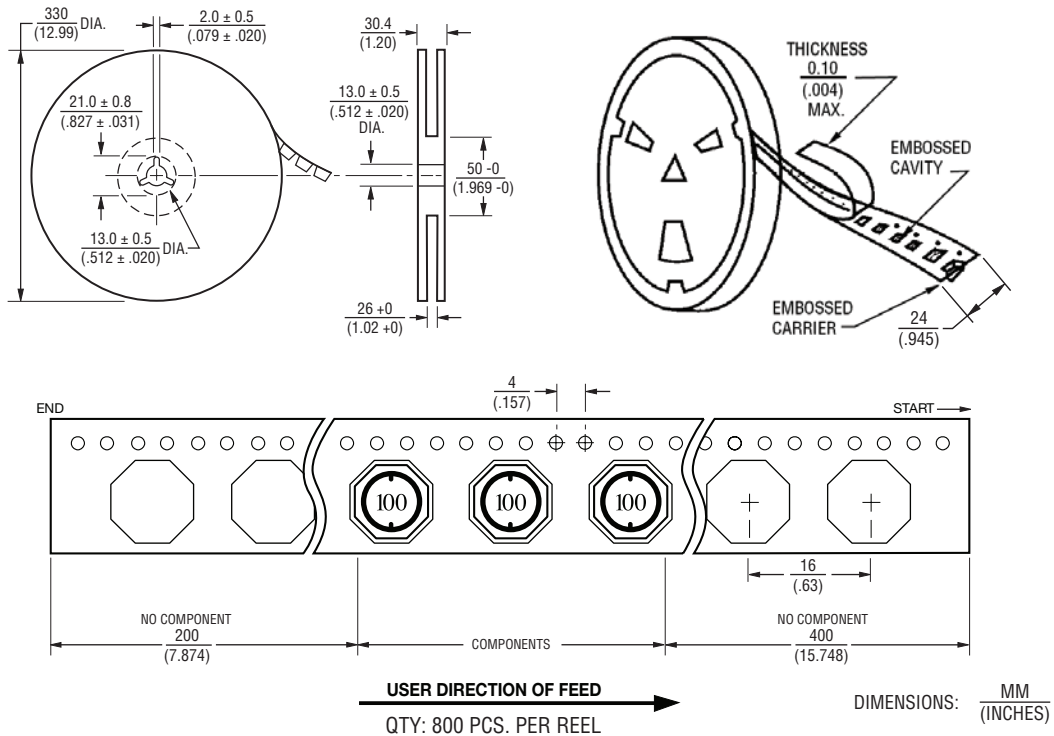
## Soldering Profile



## Inductance vs. DC Current Plot



## Packaging Specifications



REV. 09/20

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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