



## Features

- Available in E6 series
- Unit height of 3.8 mm
- Current up to 7.2 A
- Lead free
- RoHS compliant\*

## Applications

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

# SRU1038 Series - Shielded SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 KHz |        | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC (mΩ) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|--------------------|--------|--------|----------------------|----------------|----------|----------------|----------------|
|                 | (μH)               | Tol. % |        |                      |                |          |                |                |
| SRU1038-1R5Y    | 1.5                | ± 30   | 14     | 7.96                 | 65.0           | 5.2      | 7.20           | 7.00           |
| SRU1038-2R2Y    | 2.2                | ± 30   | 12     | 7.96                 | 55.0           | 7.7      | 6.80           | 6.50           |
| SRU1038-2R5Y    | 2.5                | ± 30   | 12     | 7.96                 | 50.0           | 12.5     | 6.10           | 6.00           |
| SRU1038-3R5Y    | 3.5                | ± 30   | 14     | 7.96                 | 35.0           | 11.5     | 5.50           | 5.50           |
| SRU1038-3R8Y    | 3.8                | ± 30   | 14     | 7.96                 | 35.0           | 15.0     | 5.50           | 5.50           |
| SRU1038-5R0Y    | 5.0                | ± 30   | 12     | 7.96                 | 30.0           | 14.5     | 4.60           | 4.80           |
| SRU1038-5R2Y    | 5.2                | ± 30   | 12     | 7.96                 | 30.0           | 22.0     | 4.60           | 4.80           |
| SRU1038-6R2Y    | 6.2                | ± 30   | 12     | 7.96                 | 25.0           | 16.5     | 4.00           | 4.20           |
| SRU1038-7R0Y    | 7.0                | ± 30   | 13     | 7.96                 | 36.0           | 35.0     | 3.90           | 4.00           |
| SRU1038-100Y    | 10.0               | ± 30   | 24     | 7.96                 | 20.0           | 25.0     | 3.80           | 3.60           |
| SRU1038-150Y    | 15.0               | ± 30   | 24     | 2.52                 | 16.0           | 37.0     | 2.80           | 2.70           |
| SRU1038-220Y    | 22.0               | ± 30   | 20     | 2.52                 | 12.0           | 55.8     | 2.20           | 2.30           |
| SRU1038-270Y    | 27.0               | ± 30   | 22     | 2.52                 | 11.0           | 78.0     | 1.85           | 1.90           |
| SRU1038-330Y    | 33.0               | ± 30   | 22     | 2.52                 | 10.0           | 86.0     | 1.80           | 1.80           |
| SRU1038-470Y    | 47.0               | ± 30   | 22     | 2.52                 | 8.0            | 121.0    | 1.65           | 1.60           |
| SRU1038-680Y    | 68.0               | ± 30   | 24     | 2.52                 | 7.0            | 166.0    | 1.10           | 1.30           |
| SRU1038-101Y    | 100.0              | ± 30   | 24     | 0.796                | 6.0            | 220.0    | 1.30           | 1.10           |
| SRU1038-151Y    | 150.0              | ± 30   | 20     | 0.796                | 5.0            | 358.0    | 0.90           | 0.80           |
| SRU1038-221Y    | 220.0              | ± 30   | 22     | 0.796                | 4.0            | 565.0    | 0.65           | 0.65           |
| SRU1038-331Y    | 330.0              | ± 30   | 20     | 0.796                | 3.0            | 773.0    | 0.55           | 0.52           |

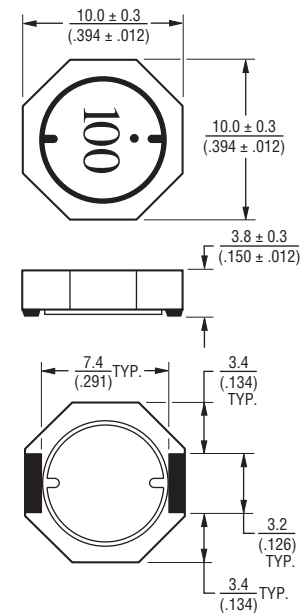
## General Specifications

Test Voltage.....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 10 sec.

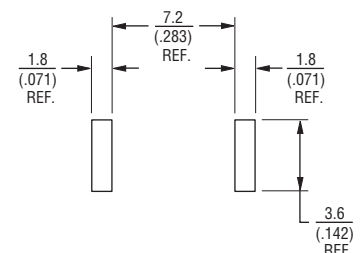
## Materials

Core.....Ferrite DR and RI core  
 Wire .....Enamelled copper  
 Base .....LCP E4008  
 Terminal .....Ag/Ni/Sn  
 Rated Current  
 .....Ind. drop 35 % typ. at Isat  
 Temperature Rise  
 .....40 °C max. at rated I rms  
 Packaging.....800 pcs. per reel

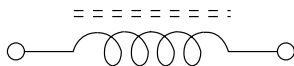
## Product Dimensions



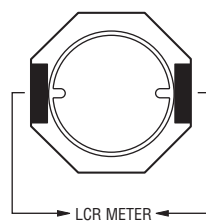
## Recommended Layout



## Electrical Schematic



## Inductor Connection

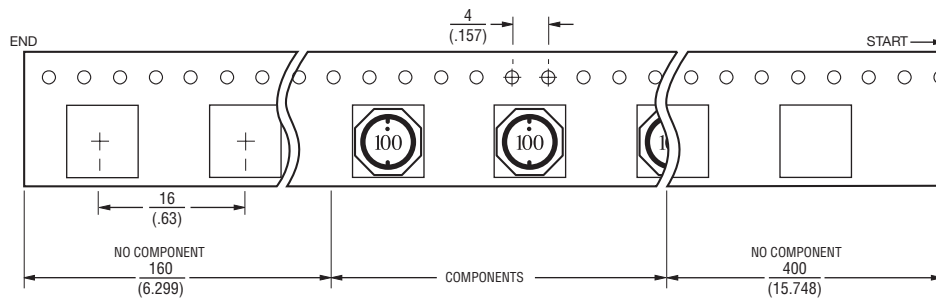
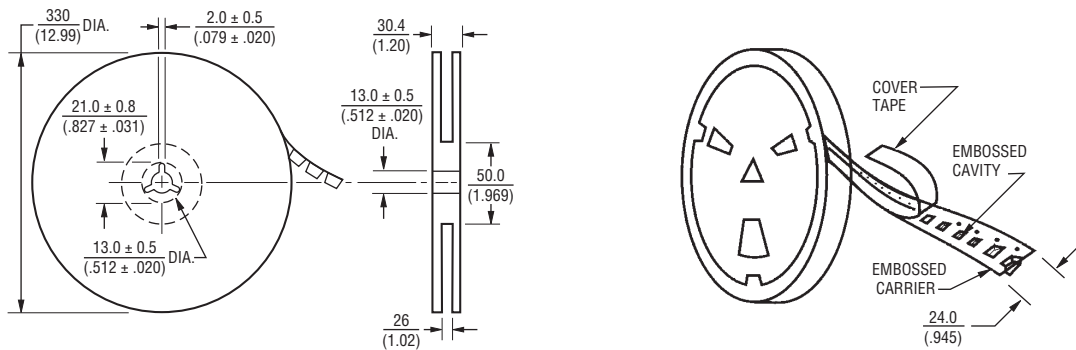


DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

# SRU1038 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 800 PCS. PER REEL

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

REV. 08/09

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.