



## Features

- Maximum height of 1.8 mm
- Current up to 2.2 A
- RoHS compliant\*

## Applications

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

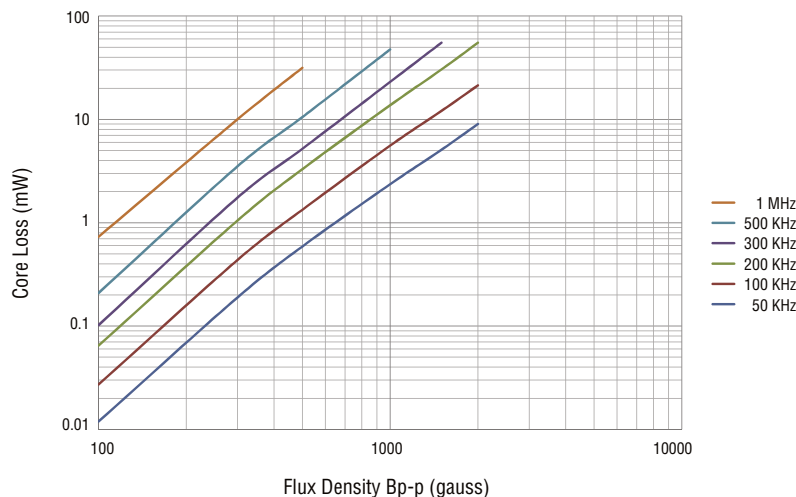
# SRU2016 Series - Shielded SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 KHz |        | Q Ref. | Test Freq. (MHz) | SRF Typ. (MHz) | RDC Max. (mΩ) | Irms Max. (A) | Isat Typ. (A) | Marking | **K-Factor |
|-----------------|--------------------|--------|--------|------------------|----------------|---------------|---------------|---------------|---------|------------|
|                 | (μH)               | Tol. % |        |                  |                |               |               |               |         |            |
| SRU2016-1R0Y    | 1.0                | ±30    | 8      | 7.96             | 250            | 60            | 2.20          | 1.60          | A       | 2170       |
| SRU2016-2R2Y    | 2.2                | ±30    | 8      | 7.96             | 120            | 105           | 1.60          | 1.00          | C       | 1485       |
| SRU2016-3R0Y    | 3.0                | ±30    | 8      | 7.96             | 90             | 135           | 1.50          | 0.87          | E       | 1227       |
| SRU2016-4R7Y    | 4.7                | ±30    | 8      | 7.96             | 80             | 215           | 1.15          | 0.74          | F       | 973        |
| SRU2016-6R0Y    | 6.0                | ±30    | 9      | 7.96             | 70             | 250           | 0.90          | 0.63          | G       | 855        |
| SRU2016-100Y    | 10                 | ±30    | 9      | 2.52             | 45             | 430           | 0.87          | 0.52          | H       | 627        |
| SRU2016-150Y    | 15                 | ±30    | 10     | 2.52             | 40             | 650           | 0.60          | 0.40          | I       | 514        |
| SRU2016-220Y    | 22                 | ±30    | 12     | 2.52             | 30             | 990           | 0.43          | 0.37          | J       | 448        |
| SRU2016-330Y    | 33                 | ±30    | 12     | 2.52             | 20             | 1470          | 0.41          | 0.29          | K       | 376        |
| SRU2016-470Y    | 47                 | ±30    | 15     | 2.52             | 20             | 1650          | 0.31          | 0.22          | L       | 303        |
| SRU2016-680Y    | 68                 | ±30    | 18     | 2.52             | 15             | 3510          | 0.22          | 0.17          | M       | 233        |
| SRU2016-101Y    | 100                | ±30    | 8      | 2.52             | 10             | 4900          | 0.19          | 0.15          | N       | 209        |

\*\*K-Factor: To calculate core flux density, Bp-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.

## Core Loss vs. Flux Density

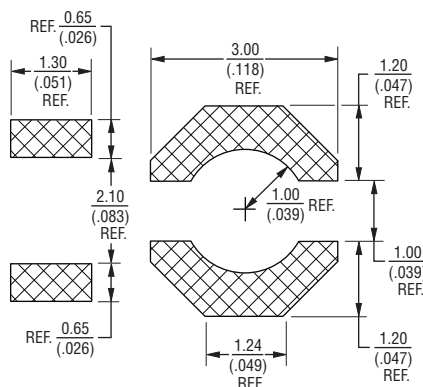


## Electrical Schematic



\* 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)

## Recommended Layout



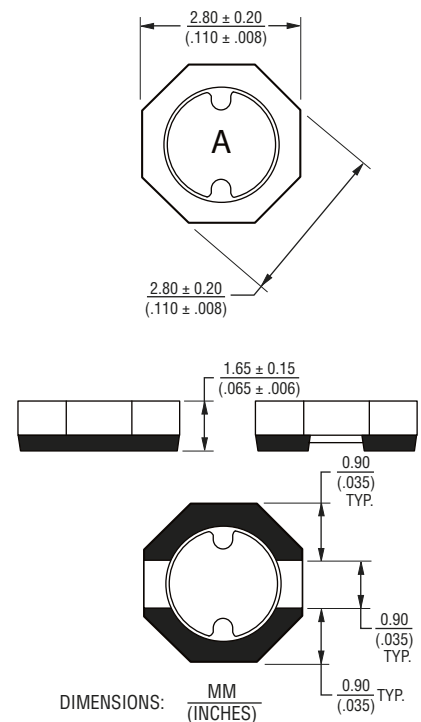
## General Specifications

Test Voltage ..... 0.1 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.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

**Materials**

Core ..... Ferrite DR and RI core  
 Wire ..... Enamelled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current ..... Ind. drop 35 % typ. at Isat  
 Temperature Rise ..... 40 °C max. at rated Irms  
 Packaging ..... 1,000 pcs. per reel

## Product Dimensions

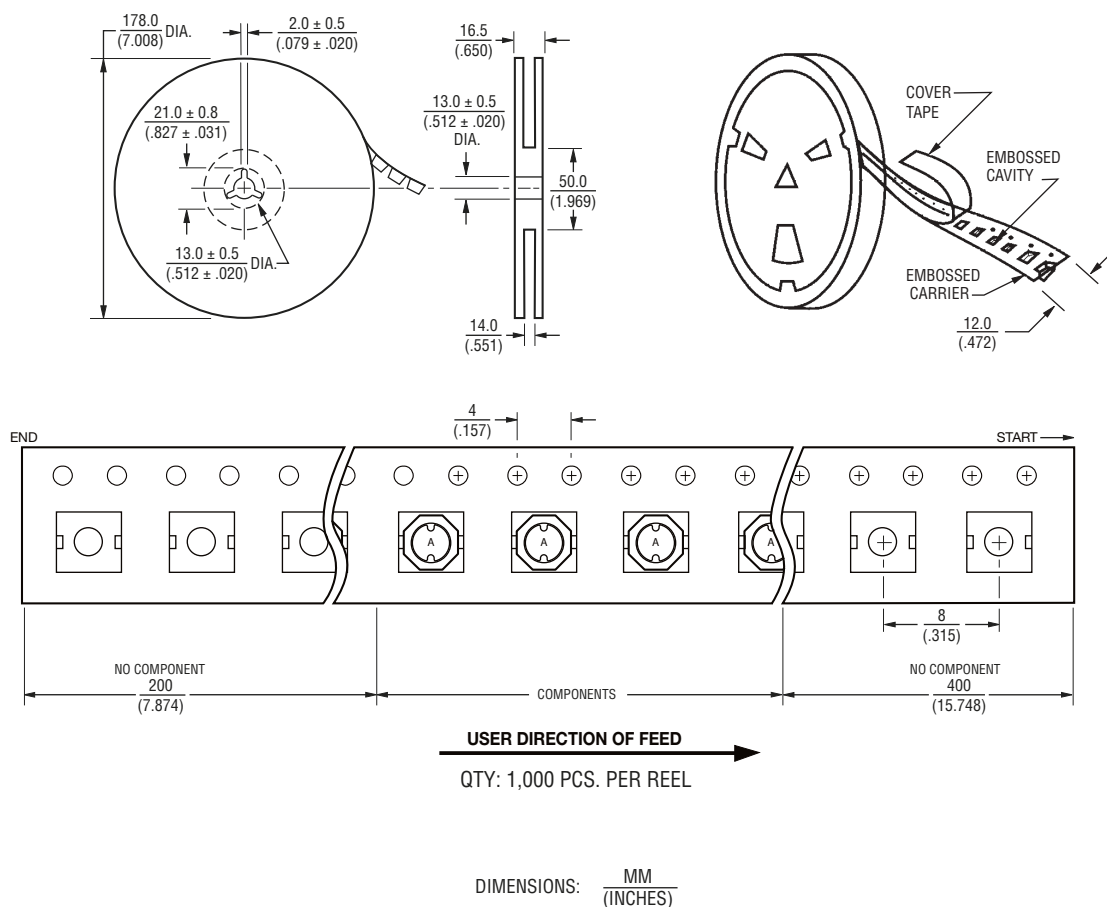


**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# SRU2016 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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