



**THE DATASHEET OF  
SRU8028-4R7Y**





## Features

- Available in E6 series
- Unit height of 2.8 mm
- Current up to 7 A
- RoHS compliant\*

## Applications

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

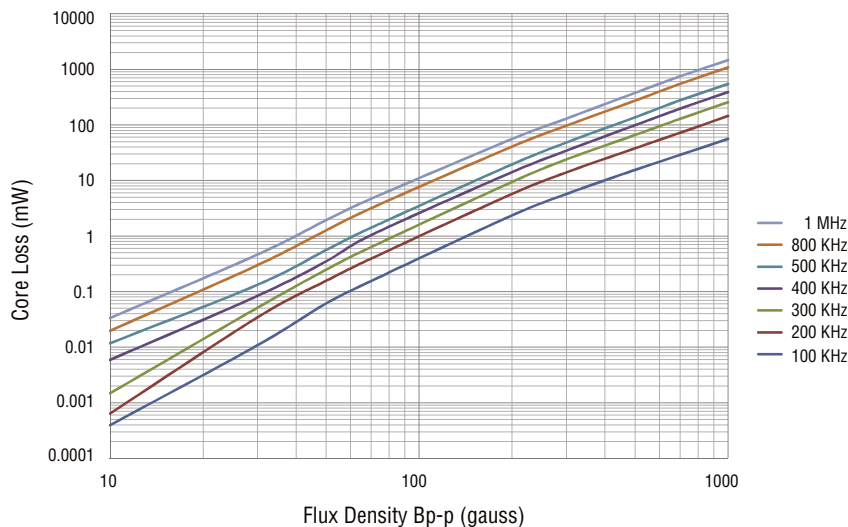
# SRU8028 Series - Shielded SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 KHz |        | Q Ref. | Test Freq. (MHz) | SRF Typ. (MHz) | RDC (mΩ) | I <sub>rms</sub> Max. (A) | I <sub>sat</sub> Typ. (A) | **K-Factor |
|-----------------|--------------------|--------|--------|------------------|----------------|----------|---------------------------|---------------------------|------------|
|                 | (μH)               | Tol. % |        |                  |                |          |                           |                           |            |
| SRU8028-1R0Y    | 1.0                | ±30    | 12     | 7.96             | 66.0           | 10.1     | 7.00                      | 5.50                      | 389        |
| SRU8028-2R5Y    | 2.5                | ±30    | 15     | 7.96             | 65.0           | 13.6     | 4.50                      | 4.20                      | 251        |
| SRU8028-3R3Y    | 3.3                | ±30    | 12     | 7.96             | 60.0           | 17.5     | 3.60                      | 3.50                      | 222        |
| SRU8028-4R7Y    | 4.7                | ±30    | 15     | 7.96             | 50.0           | 20.0     | 3.70                      | 3.20                      | 198        |
| SRU8028-6R8Y    | 6.8                | ±30    | 13     | 7.96             | 40.0           | 34.0     | 2.80                      | 2.50                      | 164        |
| SRU8028-8R2Y    | 8.2                | ±30    | 17     | 7.96             | 37.0           | 54.0     | 2.60                      | 2.30                      | 143        |
| SRU8028-100Y    | 10.0               | ±30    | 22     | 2.52             | 35.0           | 45.0     | 2.60                      | 2.20                      | 130        |
| SRU8028-120Y    | 12.0               | ±30    | 21     | 2.52             | 30.0           | 76.0     | 2.20                      | 2.00                      | 121        |
| SRU8028-150Y    | 15.0               | ±30    | 20     | 2.52             | 25.0           | 66.0     | 2.00                      | 1.70                      | 108        |
| SRU8028-220Y    | 22.0               | ±30    | 22     | 2.52             | 20.0           | 106      | 1.60                      | 1.50                      | 88         |
| SRU8028-330Y    | 33.0               | ±30    | 20     | 2.52             | 15.0           | 147      | 1.30                      | 1.10                      | 74         |
| SRU8028-470Y    | 47.0               | ±30    | 14     | 2.52             | 12.0           | 177      | 1.20                      | 1.00                      | 62         |
| SRU8028-680Y    | 68.0               | ±30    | 23     | 2.52             | 9.0            | 317      | 0.85                      | 0.80                      | 50         |
| SRU8028-101Y    | 100.0              | ±30    | 35     | 0.796            | 8.0            | 390      | 0.75                      | 0.70                      | 41         |

\*\*K-Factor: To calculate core flux density, B<sub>p-p</sub> (gauss) = K x L(μH) x ΔI (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

## Core Loss vs. Flux Density



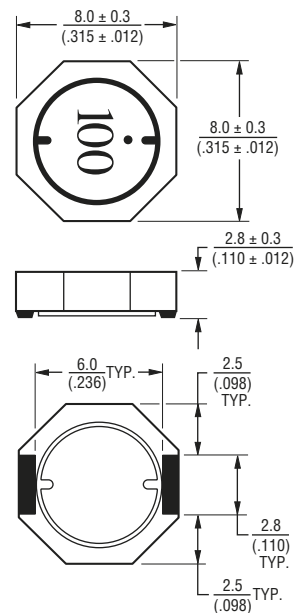
## General Specifications

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.  
 Rated Current..Ind. drop 35 % typ. at I<sub>sat</sub> Temperature Rise ..... 40 °C max. at rated I<sub>rms</sub>  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

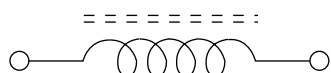
## Materials

Core..... Ferrite DR and RI core  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Packaging..... 1500 pcs. per reel

## Product Dimensions

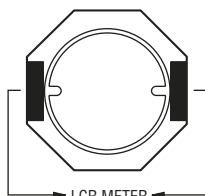


## Electrical Schematic



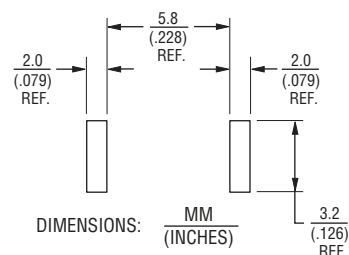
\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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## Inductor Connection



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

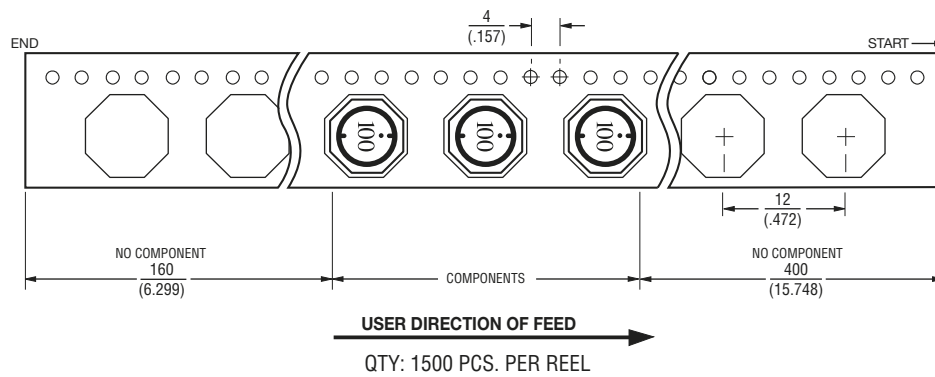
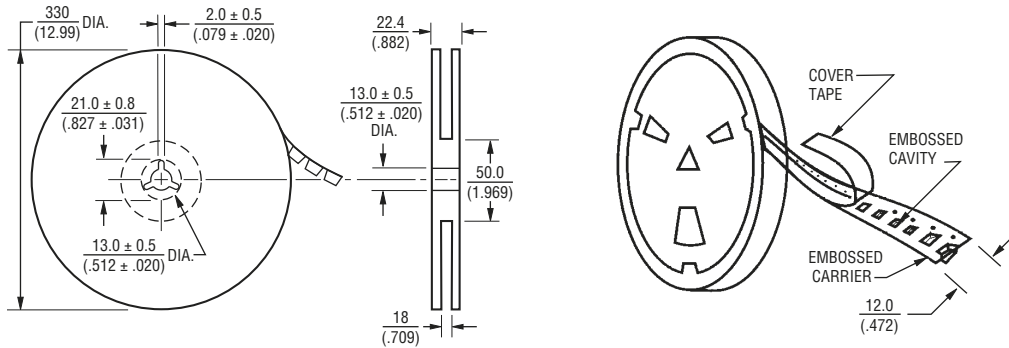
## Recommended Layout



# SRU8028 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



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

REV. 03/18

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Users should verify actual device performance in their specific applications.

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