



## Features

- Available in E6 series
- Unit height of 1.8 mm
- Current up to 2.8 A
- RoHS compliant\*

## Applications

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

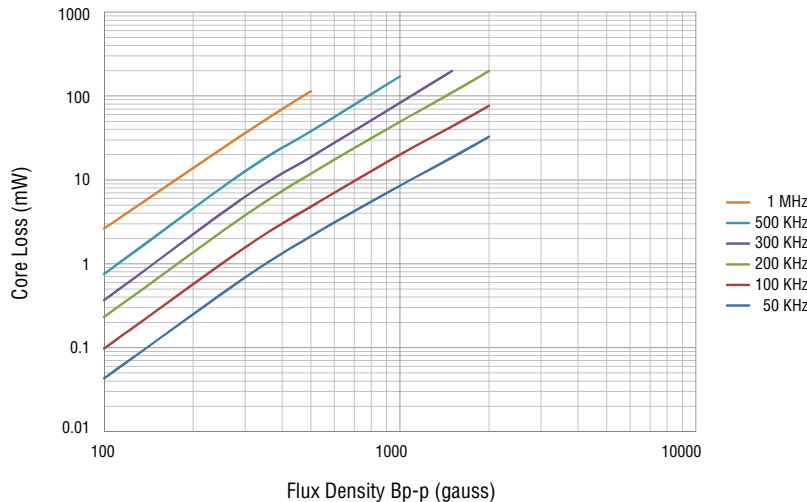
## SRU5018 Series - Shielded SMD Power Inductors

### Electrical Specifications

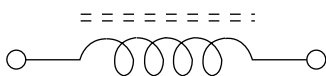
| Bourns<br>Part Number | Inductance<br>@ 100 KHz |             | Q<br>Ref. | Test<br>Freq.<br>(MHz) | SRF<br>Min.<br>(MHz) | RDC<br>(mΩ) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(A) | **K-<br>Factor |
|-----------------------|-------------------------|-------------|-----------|------------------------|----------------------|-------------|----------------------|----------------------|----------------|
|                       | L (μH)                  | Tol.<br>(%) |           |                        |                      |             |                      |                      |                |
| SRU5018-1R0Y          | 1.0                     | ±30         | 9         | 7.96                   | 200                  | 12.5        | 2.80                 | 2.85                 | 1105           |
| SRU5018-1R5Y          | 1.5                     | ±30         | 9         | 7.96                   | 160                  | 15.5        | 2.50                 | 2.40                 | 904            |
| SRU5018-2R2Y          | 2.2                     | ±30         | 10        | 7.96                   | 130                  | 20.5        | 2.30                 | 2.10                 | 765            |
| SRU5018-3R5Y          | 3.5                     | ±30         | 9         | 7.96                   | 90                   | 32.0        | 2.10                 | 1.70                 | 585            |
| SRU5018-4R7Y          | 4.7                     | ±30         | 8.5       | 7.96                   | 80                   | 36.0        | 2.00                 | 1.55                 | 524            |
| SRU5018-6R8Y          | 6.8                     | ±30         | 7.5       | 7.96                   | 60                   | 50.0        | 1.45                 | 1.20                 | 432            |
| SRU5018-100Y          | 10.0                    | ±30         | 12        | 2.52                   | 50                   | 65.0        | 1.25                 | 1.05                 | 368            |
| SRU5018-150Y          | 15.0                    | ±30         | 12        | 2.52                   | 40                   | 100.0       | 0.95                 | 0.80                 | 301            |
| SRU5018-220Y          | 22.0                    | ±30         | 12        | 2.52                   | 28                   | 160.0       | 0.68                 | 0.65                 | 243            |
| SRU5018-330Y          | 33.0                    | ±30         | 13        | 2.52                   | 23                   | 220.0       | 0.66                 | 0.56                 | 195            |
| SRU5018-470Y          | 47.0                    | ±30         | 13        | 2.52                   | 18                   | 330.0       | 0.54                 | 0.45                 | 163            |
| SRU5018-680Y          | 68.0                    | ±30         | 12        | 2.52                   | 16                   | 480.0       | 0.37                 | 0.36                 | 140            |
| SRU5018-101Y          | 100.0                   | ±30         | 15        | 0.796                  | 15                   | 620.0       | 0.32                 | 0.31                 | 117            |

\*\*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.

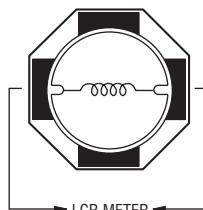
### Core Loss vs. Flux Density



### Electrical Schematic



### Inductor Connection



\* 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. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

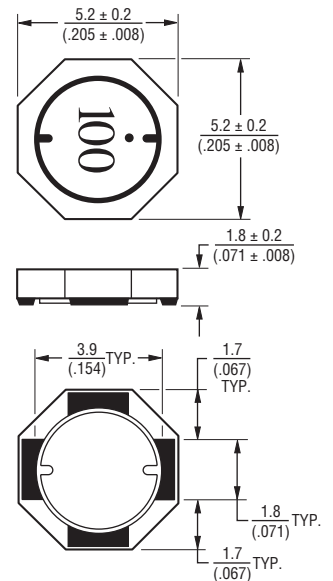
### General Specifications

Test Voltage.....0.1 V  
 Reflow Soldering .. 230 °C, 50 sec. max.  
 Operating Temp. ....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature...-40 °C to +125 °C  
 Resistance to Soldering Heat  
 .....+260 °C for 10 sec.

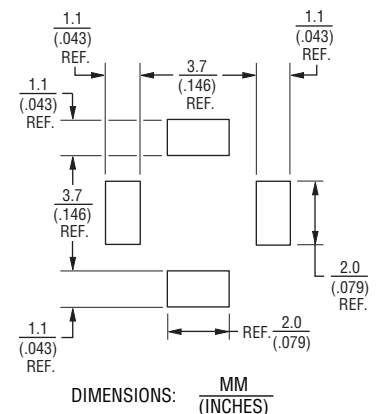
### Materials

Core.....Ferrite DR and RI core  
 Wire .....Enameled copper  
 Terminal.....Ag/Ni/Sn  
 Rated Current..Ind. drop 35 % typ. at Isat  
 Temperature Rise  
 .....30 °C max. at rated I rms  
 Packaging.....1000 pcs. per reel

### Product Dimensions



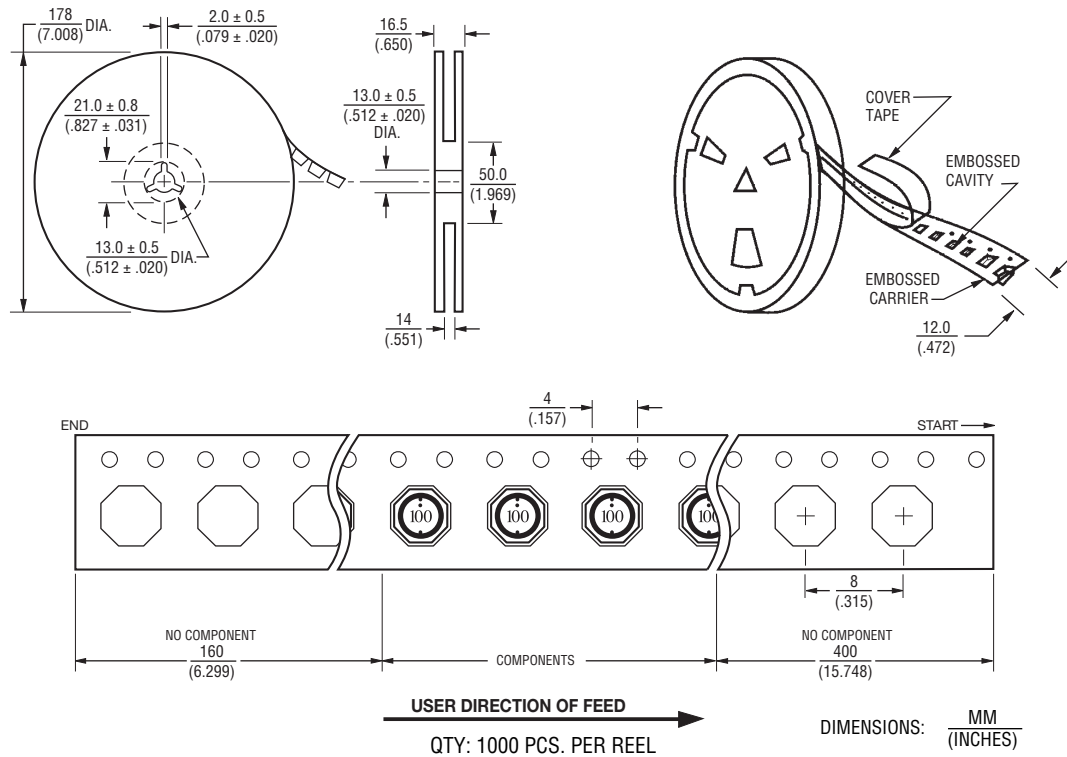
### Recommended Layout



# SRU5018 Series - Shielded SMD Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 11/13

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# AMEYA360

## Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit [www.ameya360.com](http://www.ameya360.com)

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd  
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email [amall@ameya360.com](mailto:amall@ameya360.com)

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email [service@ameya360.com](mailto:service@ameya360.com)

➤ Partnership :

Tel +86 (21) 64016692-8333

Email [mkt@ameya360.com](mailto:mkt@ameya360.com)