



**THE DATASHEET OF  
SRU6018-680Y**





### Features

- Maximum height of 2.0 mm
- Current up to 3.6 A
- RoHS compliant\*

### Applications

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

## SRU6018 Series - Shielded SMD Power Inductors

### Electrical Specifications

Bourns Part Number	Inductance @ 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	I rms Max. (A)	I sat Typ. (A)	**K-Factor
	L (μH)	Tol. (%)							
SRU6018-1R2Y	1.2	±30	8	7.96	130	25	3.60	2.80	707
SRU6018-1R8Y	1.8	±30	8	7.96	90	28	3.00	2.30	579
SRU6018-3R3Y	3.3	±30	8	7.96	60	36	2.50	1.70	424
SRU6018-4R7Y	4.7	±30	8	7.96	50	52	2.20	1.40	374
SRU6018-6R8Y	6.8	±30	8	7.96	40	60	1.90	1.20	303
SRU6018-100Y	10	±30	12	2.52	30	88	1.70	1.00	236
SRU6018-150Y	15	±30	12	2.52	24	130	1.50	0.80	193
SRU6018-220Y	22	±30	14	2.52	18	190	1.20	0.65	163
SRU6018-330Y	33	±30	10	2.52	16	255	1.00	0.58	130
SRU6018-470Y	47	±30	12	2.52	14	410	0.80	0.46	108
SRU6018-680Y	68	±30	12	2.52	12	600	0.62	0.36	90
SRU6018-101Y	100	±30	20	2.52	9	715	0.50	0.34	77

\*\*K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

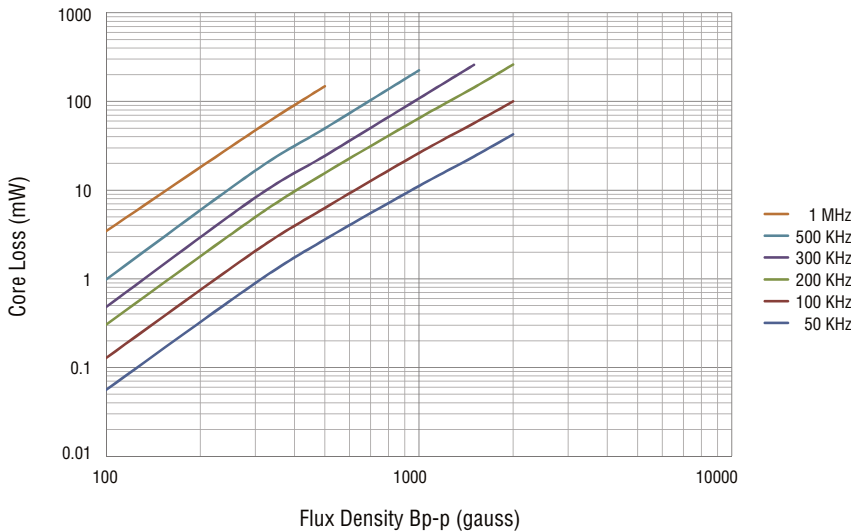
### General Specifications

Test Voltage .....0.1 V  
 Reflow Soldering .. 230 °C, 50 sec. max.  
 Operating Temp. ....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temp. ....-40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C for 10 sec.  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM) ..... N/A

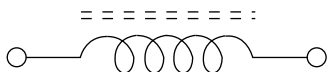
### Materials

Core.....Ferrite DR and RI core  
 Wire .....Enamelled copper  
 Terminal .....Ag/Ni/Sn  
 Rated Current..Ind. drop 35 % typ. at Isat  
 Temp. Rise.....30 °C max. at rated Irms  
 Packaging..... 800 pcs. per reel

### Core Loss vs. Flux Density



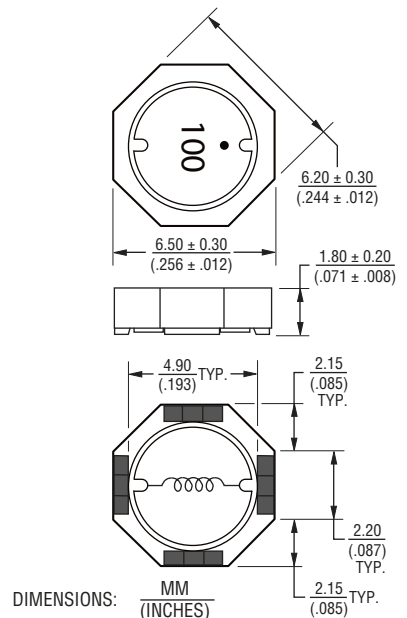
### Electrical Schematic



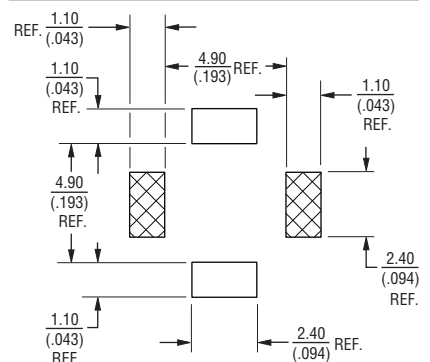
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*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)

### Product Dimensions



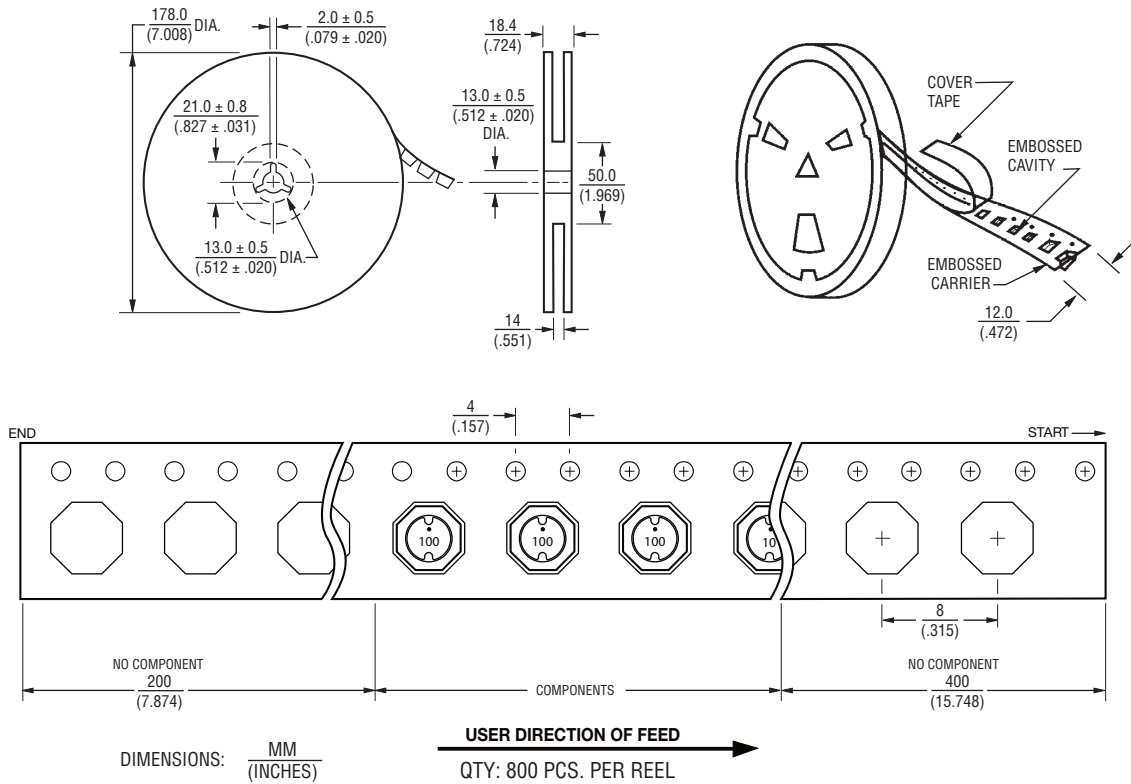
### Recommended Layout



# SRU6018 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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