



**THE DATASHEET OF  
SRU1028-6R8Y**





## 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

# SRU1028 Series - Shielded SMD Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Min. (MHz)	RDC (mΩ)	I rms Max. (A)	I sat Typ. (A)	**K-Factor
	L (μH)	Tol. (%)							
SRU1028-1R0Y	1.0	±30	14	7.96	100.0	4.9	7.00	8.00	315
SRU1028-1R5Y	1.5	±30	12	7.96	80.0	7.3	6.50	6.50	245
SRU1028-2R2Y	2.2	±30	12	7.96	65.0	11	5.30	4.80	200
SRU1028-3R3Y	3.3	±30	14	7.96	55.0	15	4.60	4.30	169
SRU1028-4R7Y	4.7	±30	12	7.96	40.0	16	4.50	3.80	147
SRU1028-6R8Y	6.8	±30	12	7.96	30.0	15	3.50	3.00	130
SRU1028-8R2Y	8.2	±30	12	7.96	28.0	28	3.30	2.70	116
SRU1028-100Y	10.0	±30	20	7.96	25.0	40	2.80	2.40	105
SRU1028-120Y	12.0	±30	22	2.52	23.0	70	2.40	2.30	93
SRU1028-150Y	15.0	±30	26	2.52	22.0	69	2.00	2.00	82
SRU1028-220Y	22.0	±30	26	2.52	16.0	104	1.60	1.40	71
SRU1028-330Y	33.0	±30	24	2.52	12.0	139	1.25	1.20	60
SRU1028-470Y	47.0	±30	20	2.52	11.0	167	1.30	1.10	49
SRU1028-560Y	56.0	±30	22	2.52	10.0	208	1.10	1.00	43
SRU1028-680Y	68.0	±30	20	2.52	9.0	232	1.00	0.90	39
SRU1028-820Y	82.0	±30	20	2.52	8.0	323	0.90	0.85	36
SRU1028-101Y	100.0	±30	20	0.796	7.0	365	0.85	0.80	33
SRU1028-121Y	120.0	±30	18	0.796	6.0	428	0.65	0.70	31
SRU1028-151Y	150.0	±30	18	0.796	5.0	518	0.70	0.65	27

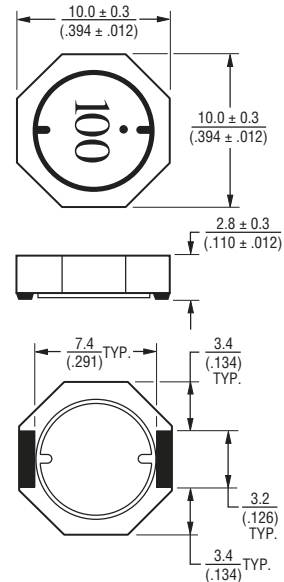
### General Specifications

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

### Materials

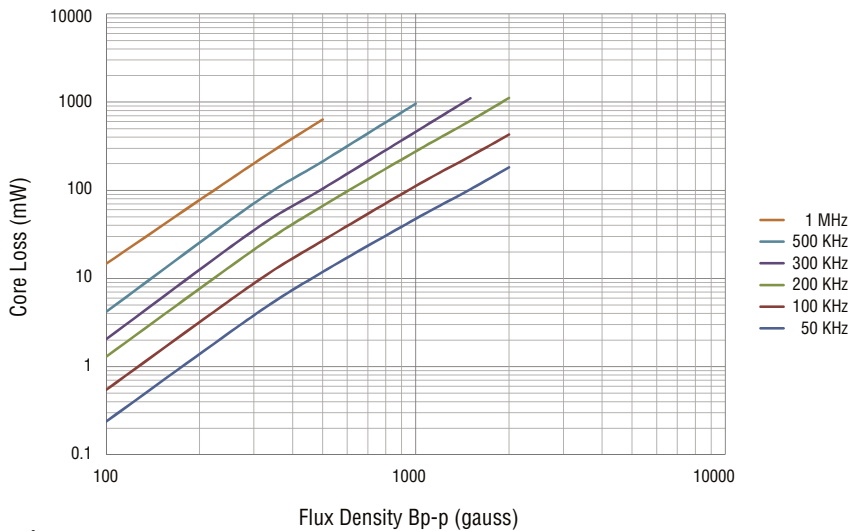
Core ..... Ferrite DR and RI core  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current ..... Ind. drop 35 % typ. at Isat  
 Temperature Rise ..... 40 °C max. at rated Irms  
 Packaging ..... 1000 pcs. per reel

### Product Dimensions

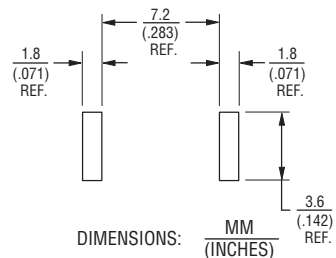


\*\*K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

### Core Loss vs. Flux Density



### Recommended Layout



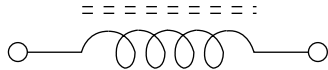
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* 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)

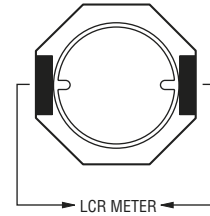
# SRU1028 Series - Shielded SMD Power Inductors

**BOURNS®**

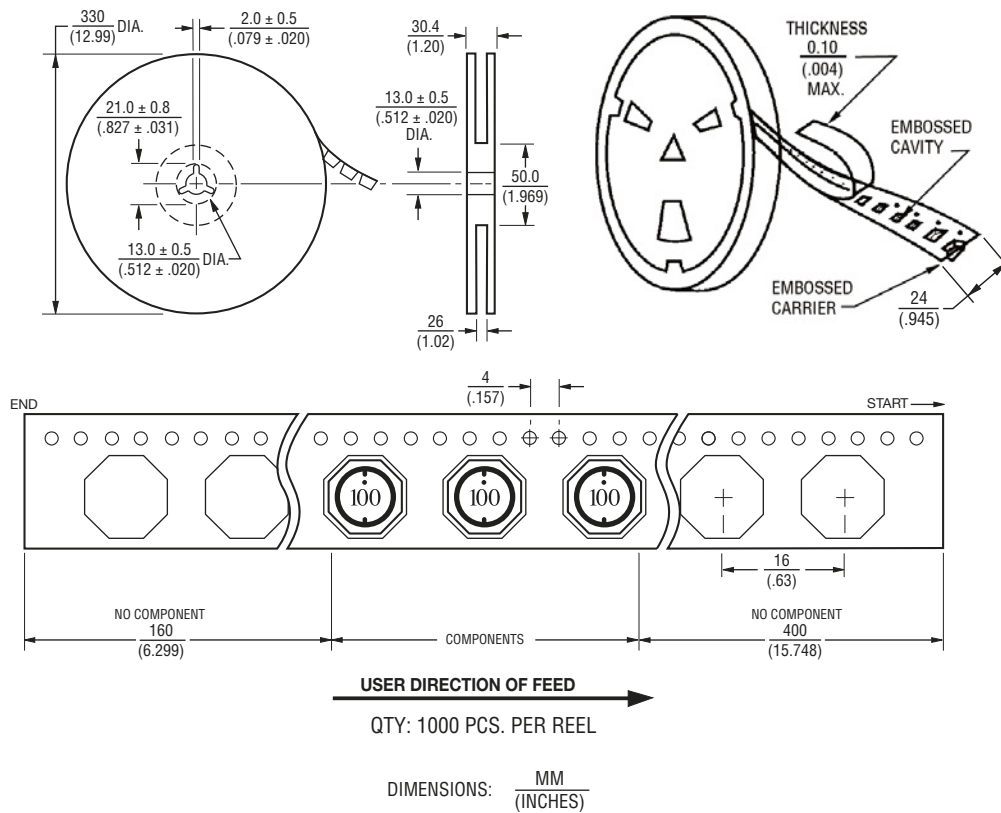
## Electrical Schematic



## Inductor Connection



## 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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