



**THE DATASHEET OF  
SRU8028-120Y**





## 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

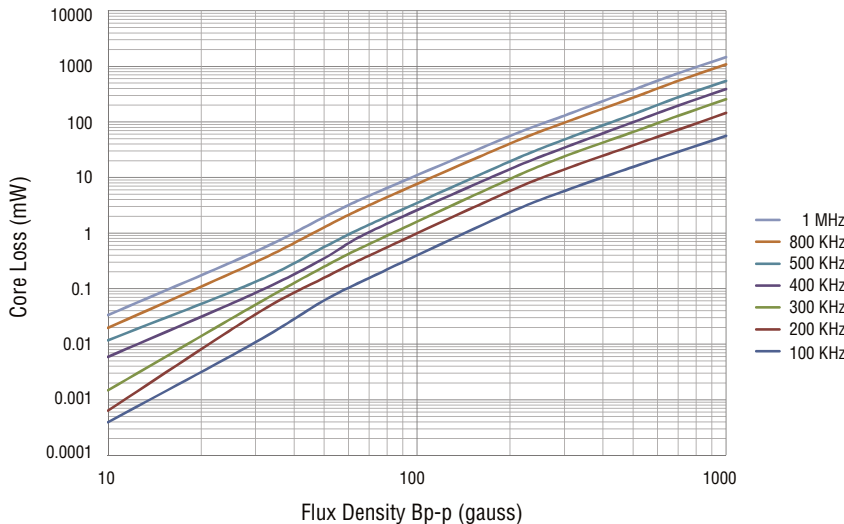
# SRU8028 Series - Shielded SMD Power Inductors

## 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



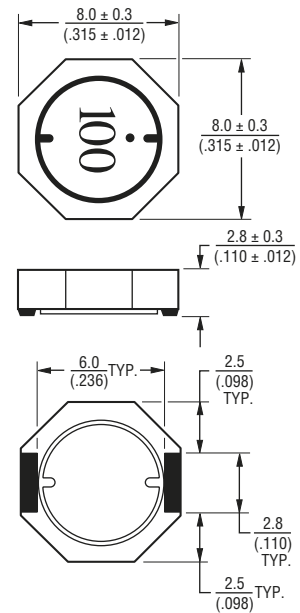
## General Specifications

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

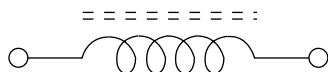
## Materials

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

## Product Dimensions

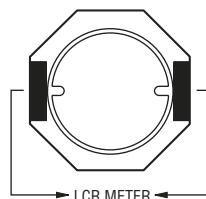


## Electrical Schematic



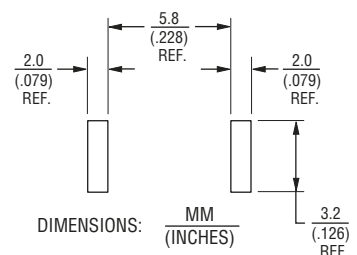
\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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## Inductor Connection



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

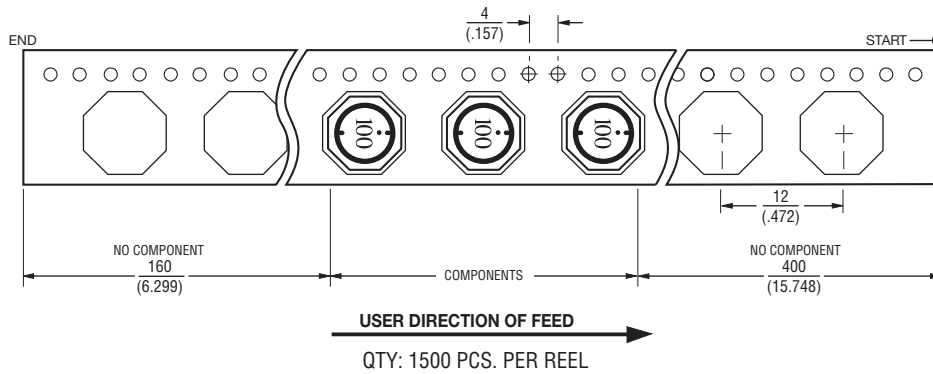
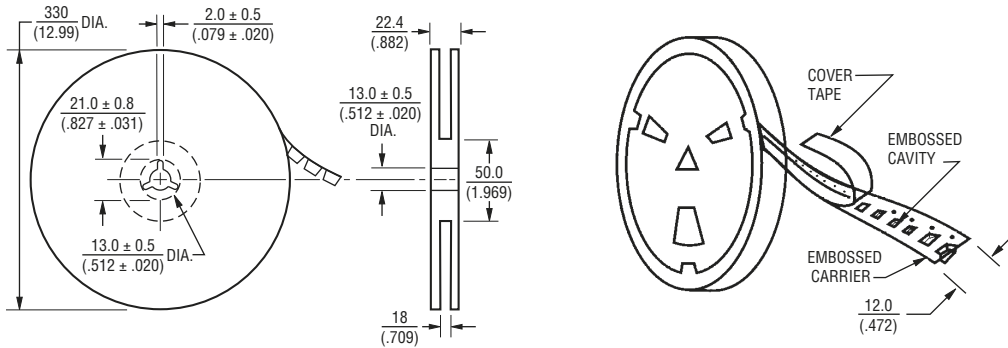
## Recommended Layout



# 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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