



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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## Features

- Available in E6 series
- Unit height of 3.8 mm
- Current up to 7.2 A
- RoHS compliant\*

## Applications

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

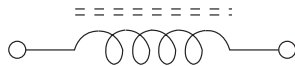
# SRU1038 Series - Shielded SMD Power Inductors

## Electrical Specifications

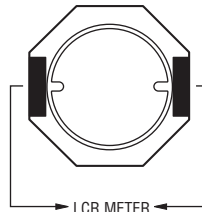
Bourns Part No.	Inductance 100 KHz		Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC (mΩ)	I <sub>rms</sub> Max. (A)	I <sub>sat</sub> Typ. (A)	**K-Factor
	(μH)	Tol. %							
SRU1038-1R5Y	1.5	±30	14	7.96	65.0	5.2	7.20	7.00	177
SRU1038-2R2Y	2.2	±30	12	7.96	55.0	7.7	6.80	6.50	145
SRU1038-2R5Y	2.5	±30	12	7.96	50.0	12.5	6.10	6.00	136
SRU1038-3R5Y	3.5	±30	14	7.96	24.0	11.5	5.50	5.50	106
SRU1038-3R8Y	3.8	±30	14	7.96	35.0	15.0	5.50	5.50	104
SRU1038-5R0Y	5.0	±30	12	7.96	30.0	14.5	4.60	4.80	94
SRU1038-5R2Y	5.2	±30	12	7.96	30.0	22.0	4.60	4.80	92
SRU1038-6R2Y	6.2	±30	12	7.96	25.0	16.5	4.00	4.20	84
SRU1038-6R8Y	6.8	±30	13	7.96	36.0	35.0	3.90	4.00	80
SRU1038-8R2Y	8.2	±30	12	7.96	22.0	32.0	3.80	3.90	73
SRU1038-100Y	10.0	±30	24	7.96	20.0	25.0	3.80	3.60	64
SRU1038-150Y	15.0	±30	24	2.52	16.0	37.0	2.80	2.70	51
SRU1038-220Y	22.0	±30	20	2.52	12.0	55.8	2.20	2.30	43
SRU1038-270Y	27.0	±30	22	2.52	11.0	78.0	1.85	1.90	39
SRU1038-330Y	33.0	±30	22	2.52	10.0	86.0	1.80	1.80	35
SRU1038-470Y	47.0	±30	22	2.52	8.0	121.0	1.65	1.60	29
SRU1038-680Y	68.0	±30	24	2.52	7.0	166.0	1.10	1.30	26
SRU1038-101Y	100.0	±30	24	0.796	6.0	220.0	1.30	1.10	20
SRU1038-151Y	150.0	±30	20	0.796	5.0	358.0	0.90	0.80	16
SRU1038-221Y	220.0	±30	22	0.796	4.0	565.0	0.65	0.65	14
SRU1038-331Y	330.0	±30	20	0.796	3.0	773.0	0.55	0.52	11

\*\*K-Factor: To calculate core flux density,  $B_p$ -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 on page 2.

## Electrical Schematic



## Inductor Connection



# BOURNS®

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\* 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.

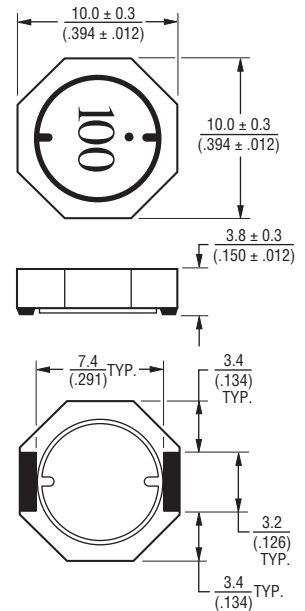
## General Specifications

Test Voltage ..... 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  
 Rated Current ..... Ind. drop 35 % typ. at I<sub>sat</sub>  
 Temperature Rise ..... 40 °C max. at rated I<sub>rms</sub>  
 Resistance to Soldering Heat ..... 260 °C for 10 sec.

## Materials

Core ..... Ferrite DR and RI core  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Packaging ..... 800 pcs. per reel

## Product Dimensions



## Recommended Layout

