# imall

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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





#### **Features**

- Shielded construction
- Inductance range: 1.2 to 220 µH
- Heating current up to 4 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

### **Applications**

- Automotive systems:
  - Driver assistant - Information
  - Entertainment
  - Lighting
- DC/DC converters
- Power supplies

# SRU6025A Series - Shielded Power Inductors

#### Electrical Specifications @ 25 °C

| Bourns<br>Part Number | Inductance<br>@ 100 KHz / 0.1 V |          | Q      | Test<br>Freq. | SRF<br>(MHz) | DCR<br>(Ω) | I rms | l sat |
|-----------------------|---------------------------------|----------|--------|---------------|--------------|------------|-------|-------|
|                       | L (µH)                          | Tol. (%) | (Ref.) | (MHz)         | Тур.         | Max.       | (A)   | (A)   |
| SRU6025A-1R2Y         | 1.2                             | ±30      | 8      | 7.96          | 120          | 0.019      | 4.0   | 3.2   |
| SRU6025A-2R2Y         | 2.2                             | ±30      | 8      | 7.96          | 65           | 0.024      | 3.4   | 2.35  |
| SRU6025A-3R3Y         | 3.3                             | ±30      | 8      | 7.96          | 50           | 0.027      | 3.2   | 2.0   |
| SRU6025A-4R7Y         | 4.7                             | ±30      | 8      | 7.96          | 42           | 0.035      | 2.7   | 1.55  |
| SRU6025A-6R8Y         | 6.8                             | ±30      | 8      | 7.96          | 36           | 0.042      | 2.4   | 1.3   |
| SRU6025A-8R2Y         | 8.2                             | ±30      | 8      | 7.96          | 30           | 0.052      | 2.2   | 1.25  |
| SRU6025A-100Y         | 10                              | ±30      | 12     | 2.52          | 25           | 0.057      | 2.0   | 1.05  |
| SRU6025A-150Y         | 15                              | ±30      | 12     | 2.52          | 22           | 0.086      | 1.8   | 0.92  |
| SRU6025A-220Y         | 22                              | ±30      | 12     | 2.52          | 18           | 0.13       | 1.6   | 0.7   |
| SRU6025A-330Y         | 33                              | ±30      | 12     | 2.52          | 12           | 0.18       | 1.2   | 0.64  |
| SRU6025A-470Y         | 47                              | ±30      | 12     | 2.52          | 10           | 0.25       | 1.0   | 0.48  |
| SRU6025A-680Y         | 68                              | ±30      | 10     | 2.52          | 8            | 0.365      | 0.8   | 0.4   |
| SRU6025A-101Y         | 100                             | ±30      | 24     | 0.796         | 7            | 0.5        | 0.7   | 0.35  |
| SRU6025A-151Y         | 150                             | ±30      | 30     | 0.796         | 5            | 0.77       | 0.54  | 0.28  |
| SRU6025A-221Y         | 220                             | ±30      | 20     | 0.796         | 4            | 1.25       | 0.42  | 0.24  |

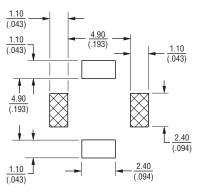
#### How to Order

#### SRU6025A - 100Y



Value Code (see table)

#### **Recommended Layout**



### BOURNS

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116 Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510 The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700 www.bourns.com

RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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**

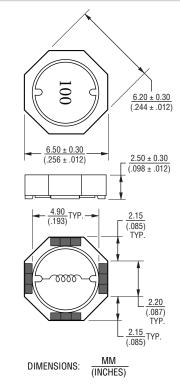
**Operating Temperature** 

| 40 °C to +125 °C             |
|------------------------------|
| (Temperature rise included)  |
| Storage Temperature          |
| 40 °C to +125 °C             |
| Resistance to Soldering Heat |
| +260 °C for 10 sec.          |
| Temperature Rise             |
|                              |
| Inductance Drop              |
|                              |

#### Materials

| Core            | Ferrite           |
|-----------------|-------------------|
| Wire            | Enameled copper   |
| Terminal Finish | Ag/Ni/Sn          |
| Packaging       | 600 pcs. per reel |

#### **Product Dimensions**



#### **Electrical Schematic**



# SRU6025A Series - Shielded Power Inductors

Reflow

Area

+3.0 °C/Sec. Max.

Peak Temperature: 250 °C

60~150 Sec

200

60 Sec. ---

150

Time (Seconds)

Forced Cooling Area

-(1.0~5.0) °C/Sec. Max.

217 °C

250

Peak Temperature: 260 °C max.

Max. Time Above 217 °C: 60~150 sec. max.

Max. Peak Temperature -5 °C: 30 sec. max.

Preheat

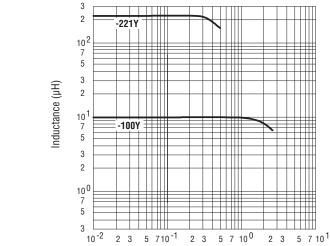
Area

150~200 °C / 60~120 Sec

60~120 Sec

100

# Inductance vs. DC Current Plot



DC Current (A)

BOURNS

#### **Packaging Specifications**

50

**Soldering Profile** 

Temperature Rising Area

+4.0 °C/Sec. Max

250

200

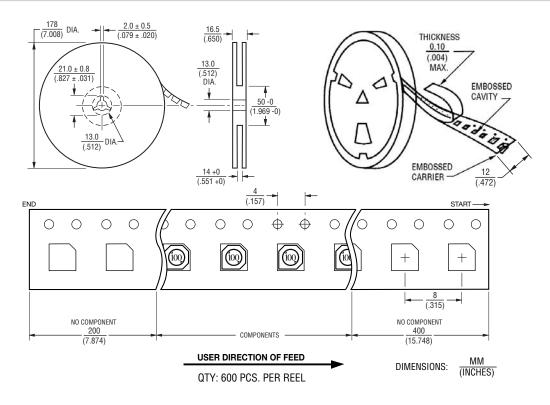
150

100

50

0

Temperature (°C)



08/13

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.