SRP1038A Series - Shielded Power Inductors

**General Specifications**

- **Inductance range:** 0.20 to 47 μH
- **High saturation current**
- **Inductance:**
  - SRP1038A-R22M: 0.22 μH to 47 μH
  - SRP1038A-R22M: 0.20 μH to 155 μH
- **DCR:**
  - Typ.: 1.0 μH
  - Max.: 1.5 μH
- **Irms:**
  - Typ.: 1.0 A
  - Max.: 1.5 A
- **Isat:**
  - Typ.: 1.0 A
  - Max.: 1.5 A
- **Rated Current:**
  - Typ.: 100 kHz
  - Max.: 150 kHz
- **Storage Temperature:**
  - Typ.: -40 °C to +150 °C
  - Max.: +260 °C, 40 sec. max.

**Materials**

- Core: Carbonyl powder core
- Wire: Enameled copper
- Terminal Finish: Sn

**Electrical Schematic**

- R45
- 1516
- 100
- 1516

**Recommended Layout**

- 13.6
- 5.4
- 3.5

**Features**

- Shielded construction
- Carbonyl powder core
- High saturation current
- Inductance range: 0.20 to 47 μH
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

**Electrical Specifications @ 25 °C**

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<th>Bourns Part Number</th>
<th>Inductance @ 100 KHz / 1 V</th>
<th>Q (Min.) @ 100 KHz / 1 V</th>
<th>SRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A)</th>
<th>Isat (A)</th>
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**Product Dimensions**

- **Non-Lead Frame Terminal**
  - Width: 11.0 ± 0.5 mm (0.433 x 0.020)
  - Height: 3.8 ± 0.2 mm (0.150 x 0.008)

- **Lead Frame Terminal**
  - Width: 10.0 ± 0.5 mm (0.394 x 0.020)
  - Height: 3.8 ± 0.2 mm (0.150 x 0.008)

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

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**WARNING** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
SRP1038A Series - Shielded Power Inductors

L vs. I Charts

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L vs. I Charts (Continued)

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Soldering Profile

PRE-HEATING
SOLDERING
T_p (260 °C / 10 seconds max.)
NATURAL COOLING
60 - 150 seconds
60 - 180 seconds
480 seconds max.

REFLOW TIMES: 3 MAX.

Packaging Specifications

How to Order

SRP1038A  -  100M
Model
Value Code (see table)

REV. 05/19
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