**Features**

- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Wide side terminal for enhanced mechanical strength
- High vibration resistance (15 G typical, 30 G peak)
- High operating temperature
- Low buzz noise
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

**SRP1038WA Series - Shielded Power Inductors**

### Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 1 V L (uH)</th>
<th>Tol. %</th>
<th>Q Typ. @ 100 kHz</th>
<th>SRF (MHz)</th>
<th>DCR (mΩ) Typ.</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
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</tbody>
</table>

**Additional Information**

Click here for more information:

- **PRODUCT**
- **TECHNICAL**
- **INVENTORY**
- **SAMPLES**
- **CONTACT**

### General Specifications

- **Operating Temperature**
  - -55 °C to +165 °C

- **Storage Temperature (Component)**
  - -55 °C to +165 °C

- **Temperature Rise**
  - 40 °C at rated Irms

- **Rated Current**
  - ........ Inductance drops 30% at Isat

- **Moisture Sensitivity Level**
  - 1

- **ESD Classification (HBM)**
  - N/A

**Materials**

- Core.................Metal alloy powder
- Wire..................Enameled copper
- Terminal Finish.................Sn

**Packaging**

- 500 pcs. per 13-inch reel

### Soldering Profile

**Profile Feature**

- **Preheat**
  - Temperature Min. (T<sub>s</sub><sub>min</sub>)
  - Temperature Max. (T<sub>s</sub><sub>max</sub>)
  - Time (t<sub>p</sub>) from T<sub>s</sub><sub>min</sub> to T<sub>s</sub><sub>max</sub>

- **Ramp-up Rate**
  - (T<sub>L</sub> to T<sub>p</sub>)
  - 3 °C/second max.

- **Liquids temperature**
  - (T<sub>L</sub>)
  - 217 °C

- **Peak package body temperature**
  - (T<sub>P</sub>)
  - 245 °C

- **Time within 5 °C of Actual Peak Temperature**
  - (t<sub>p</sub>)
  - <30 seconds

- **Ramp-Down Rate**
  - (T<sub>P</sub> to T<sub>L</sub>)
  - 6 °C/second max.

- **Time 25 °C to Peak Temperature**
  - 8 minutes max.

**WARNING**

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

* ** 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.

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SRP1038WA Series - Shielded Power Inductors

Electrical Schematic

How to Order
SRP1038WA - 1R0M
Model
Value Code (see table)

Recommended Layout

Product Dimensions

L vs. I Charts

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SRP1038WA Series - Shielded Power Inductors

L vs. I Charts (continued)

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Packaging Specifications

COVER TAPE
EMBOSSED CARRIER

QTY: 500 PCS. PER REEL

Dimensions:

<table>
<thead>
<tr>
<th>Millimeters</th>
<th>Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.40 ± 0.05</td>
<td>(0.016 ± 0.002)</td>
</tr>
<tr>
<td>2.0 ± 0.5</td>
<td>(0.079 ± 0.020)</td>
</tr>
<tr>
<td>13 ± 0.5/-0.2</td>
<td>(0.512 ± 0.008)</td>
</tr>
<tr>
<td>24.4 ± 2/-0</td>
<td>(0.961 ± 0.079)</td>
</tr>
<tr>
<td>10.0 ± 2</td>
<td>(0.394 ± 0.079)</td>
</tr>
<tr>
<td>4.0 ± 0.1</td>
<td>(0.157)</td>
</tr>
<tr>
<td>0.03 ± 0.01</td>
<td>(0.001 ± 0.004)</td>
</tr>
</tbody>
</table>

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