Features

- Shielded construction for low radiation
- High rated current
- Low DCR
- RoHS compliant* and halogen free**

**RoHS COMPLIANT & AEC APPROVED
**RoHS COMPLIANT

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 0.1 V L (mH) Tol. %</th>
<th>DCR (mΩ) DCR (mΩ)</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPB1005-R10M</td>
<td>100.0</td>
<td>0.21</td>
<td>0.21</td>
<td>53.0</td>
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<tr>
<td>SPB1005-R12M</td>
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<td>SPB1005-R15M</td>
<td>150.0</td>
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<td>53.0</td>
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<tr>
<td>SPB1005-R22M</td>
<td>220.0</td>
<td>0.21</td>
<td>0.21</td>
<td>53.0</td>
</tr>
</tbody>
</table>

Soldering Profile

Peak Temperature: 245 °C max.
Max. Peak Temperature -5 °C: 30 sec. max.
Max. Time Above 217 °C: 60~150 sec. max.

Temperature Rising Area
Preheat Area
Reflow Area
Forced Cooling Area

0 50 100 150 200 250
Time (Seconds)
0 50 100 150 200 250
Temperature (°C)

Recommended Layout

Recommended Layout

How to Order

Model: SPB1005 - R10M

Value Code (see table)

Electrical Schematic

Additional Information

Click these links for more information:

- PRODUCT SELECTOR
- TECHNICAL LIBRARY
- INVENTORY
- SAMPLES
- CONTACT

General Specifications

Operating Temperature
.......................... -40 °C to +125 °C (Temperature rise included)
Storage Temperature (Component Mounted)
.......................... -40 °C to +125 °C
Temperature Rise.... 40 °C at rated Irms
Rated Current
.......................... Inductance drops 20 % at Isat

Moisture Sensitivity Level.............. 1
ESD Classification (HBM)............... N/A

Materials

Core.......................... Ferrite
Flat Wire........................ Copper
Terminal Finish..................... Ni/Sn
Packaging.......... 1000 pcs. per 13-inch reel

Product Dimensions

WARNING
Cancer and Reproductive Harm
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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SPB1005 Series – Power Bead Inductors

Typical Percentage of Inductance vs. Current Curves

SPB1005-R10M

Temperature Rise vs. Current Plots

SPB1005-R10M

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SPB1005 Series – Power Bead Inductors

Packaging Specifications

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