SPB0705 Series – Power Bead Inductors

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

Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 100 kHz / 0.1 V</th>
<th>DCR (mΩ)</th>
<th>DCR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPB0705-72NM</td>
<td>72.0</td>
<td>0.18</td>
<td>0.35</td>
<td>43.0</td>
<td>65.0</td>
</tr>
<tr>
<td>SPB0705-R10M</td>
<td>105.0</td>
<td>0.18</td>
<td>0.35</td>
<td>43.0</td>
<td>44.0</td>
</tr>
<tr>
<td>SPB0705-R12M</td>
<td>120.0</td>
<td>0.18</td>
<td>0.35</td>
<td>43.0</td>
<td>37.0</td>
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<tr>
<td>SPB0705-R15M</td>
<td>150.0</td>
<td>0.18</td>
<td>0.35</td>
<td>43.0</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Additional Information

Click these links for more information:
- PRODUCT SELECTOR
- TECHNICAL LIBRARY
- INVEN
tory
- 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
- ESD Classification (HBM): N/A

Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

Core............................. Ferrite
Flat Wire.......................... Copper
Terminal Finish.................... Ni/Sn
Packaging.......... 950 pcs. per 13-inch reel

Product Dimensions

Recommended Layout

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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**SPB0705 Series – Power Bead Inductors**

**Typical Percentage of Inductance vs. Current Curves**

**SPB0705-72NM**

![Graph](image1)

**SPB0705-R15M**

![Graph](image2)

**SPB0705-R10M**

![Graph](image3)

**SPB0705-R12M**

![Graph](image4)

**Temperature Rise vs. Current Plots**

**SPB0705-72NM**

![Graph](image5)

**SPB0705-R15M**

![Graph](image6)

**SPB0705-R10M**

![Graph](image7)

**SPB0705-R12M**

![Graph](image8)

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Packaging Specifications

- **Dimensions:**
  - **Length:** 20.0 (0.787) mm
  - **Width:** 16 (0.630) mm
  - **Height:** 13 ± 0.5 (0.512 ± 0.020) mm

- **Leaders and Trailing:**
  - **Leader:** 200 (7.874) mm min.
  - **Trailer:** 400 (15.748) mm min.

- **Components:**
  - 72N

- **User Direction of Feed:**
  - QTY: 950 PCS PER REEL

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**Bourne's**

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REV. 10/22
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