

#### **Features**

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

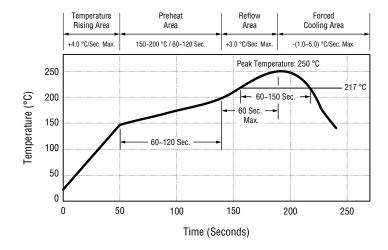
# **SPB0705 Series – Power Bead Inductors**

#### Electrical Specifications @ 25 °C

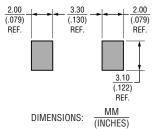
	Inductance @ 100 kHz / 0.1 V		DCR (mΩ)	DCR (mΩ)	Irms (A)	Isat (A)
Bourns Part No.	L (nH)	Tol. %	Typ.	Max.	Typ.	Typ.
SPB0705-72NM	72.0	20	0.18	0.35	43.0	65.0
SPB0705-R10M	105.0	20	0.18	0.35	43.0	44.0
SPB0705-R12M	120.0	20	0.18	0.35	43.0	37.0
SPB0705-R15M	150.0	20	0.18	0.35	43.0	30.0

#### **Soldering Profile**

Peak Temperature: 250 °C max. Max. Peak Temperature -5 °C : 30 sec. max. Max. Time Above 217 °C: 60~150 sec. max.

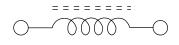


# **Recommended Layout**



# **How to Order** SPB0705 - R10M Value Code (see table)

### **Electrical Schematic**





#### WARNING **Cancer and Reproductive Harm** www.P65Warnings.ca.gov

RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\* 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.

#### **Additional Information**

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# **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 Irms1 Rated Current

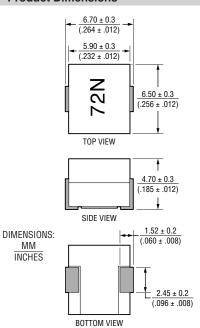
...... Inductance drops 20 % at Isat Moisture Sensitivity Level.....1 ESD Classification (HBM).....N/A

<sup>1</sup> 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

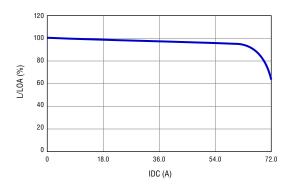
### **Product Dimensions**



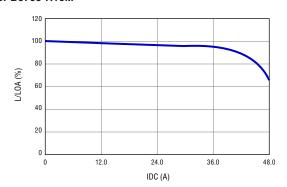
# **BOURNS**®

### Typical Percentage of Inductance vs. Current Curves

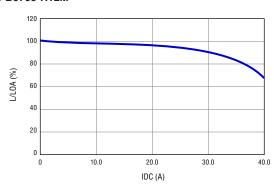
#### SPB0705-72NM



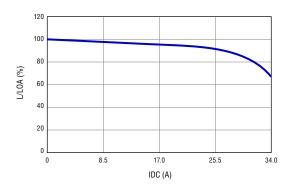
# SPB0705-R10M



### SPB0705-R12M

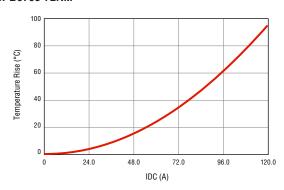


# SPB0705-R15M

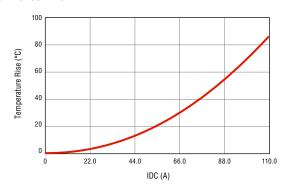


### **Temperature Rise vs. Current Plots**

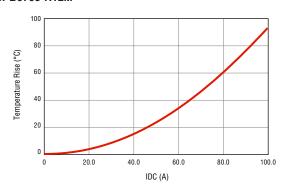
#### SPB0705-72NM



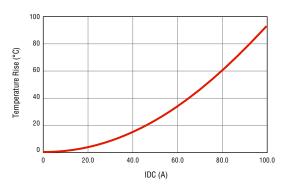
#### SPB0705-R10M



### SPB0705-R12M



# SPB0705-R15M

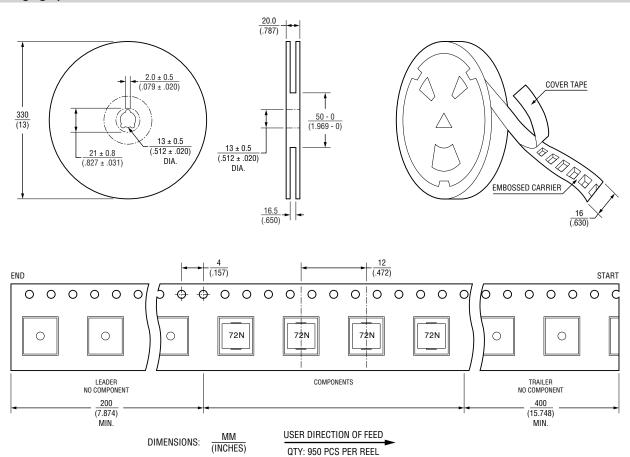


Specifications are subject to change without notice.

# **SPB0705 Series - Power Bead Inductors**

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### **Packaging Specifications**



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IR2Y SPB1005-R15M SPB1005-R12M SPB1012-R13Y SRP2510TMA-R22M SPB0705-R12M SRP2510TMA-2R2M SRP2010TMA
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