

Features

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

BOURNS®

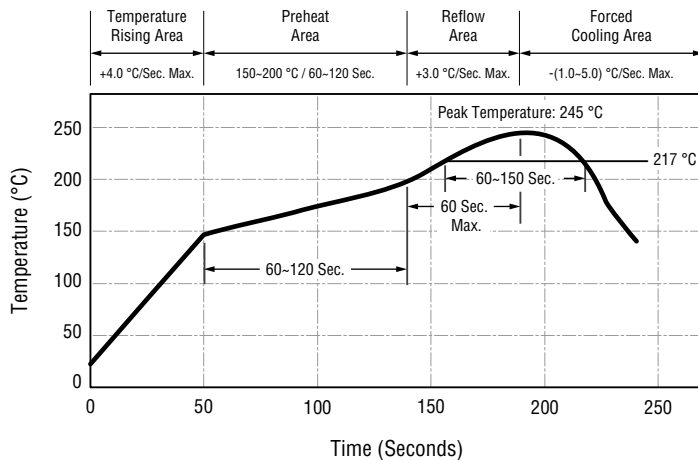
SPB1005 Series – Power Bead Inductors

Electrical Specifications @ 25 °C

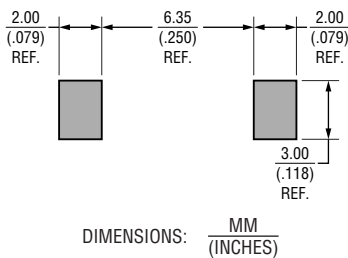
Bourns Part No.	Inductance @ 100 kHz / 0.1 V		DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (nH)	Tol. %				
SPB1005-R10M	100.0	20	0.21	0.35	53.0	73.0
SPB1005-R12M	120.0	20	0.21	0.35	53.0	60.0
SPB1005-R15M	150.0	20	0.21	0.35	53.0	47.0
SPB1005-R22M	220.0	20	0.21	0.35	53.0	33.0

Soldering Profile

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



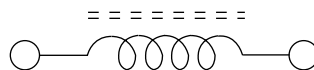
Recommended Layout



How to Order

SPB1005 - R10M
 Model _____
 Value Code (see table) _____

Electrical Schematic



Additional Information

Click these links for more information:



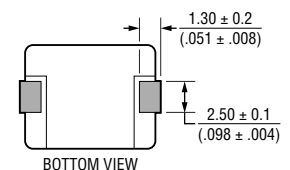
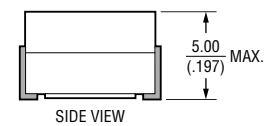
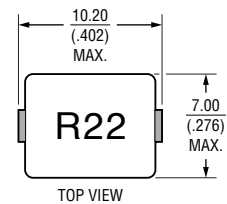
General Specifications

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 Sensivity Level 1
 ESD Classification (HBM) N/A
¹ 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 1000 pcs. per 13-inch reel

Product Dimensions



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$



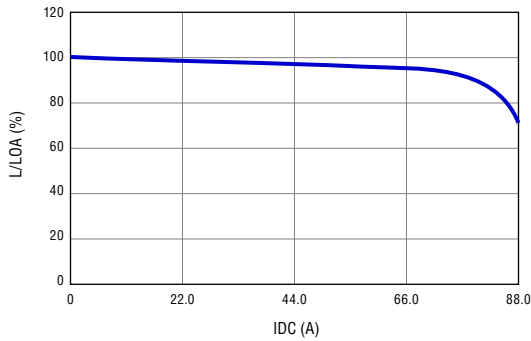
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* 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.

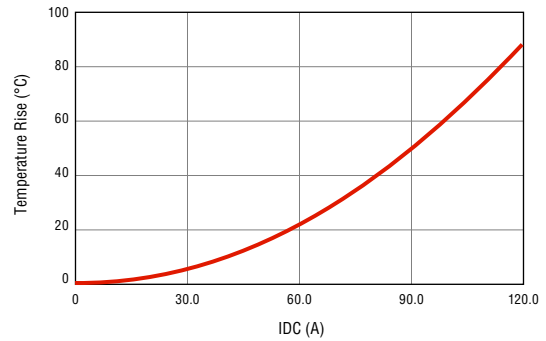
Typical Percentage of Inductance vs. Current Curves

Temperature Rise vs. Current Plots

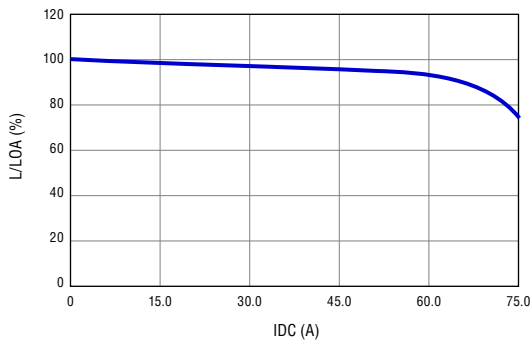
SPB1005-R10M



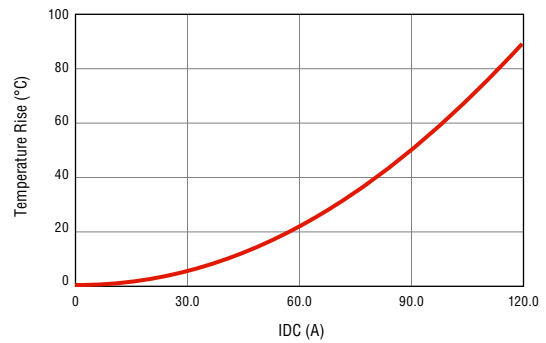
SPB1005-R10M



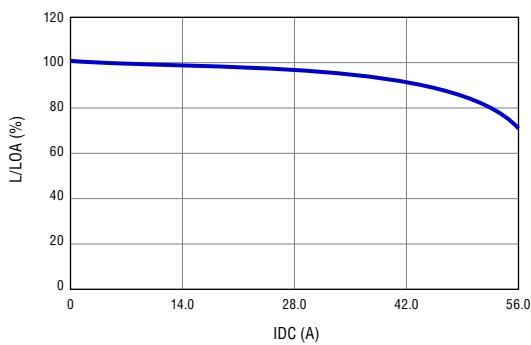
SPB1005-R12M



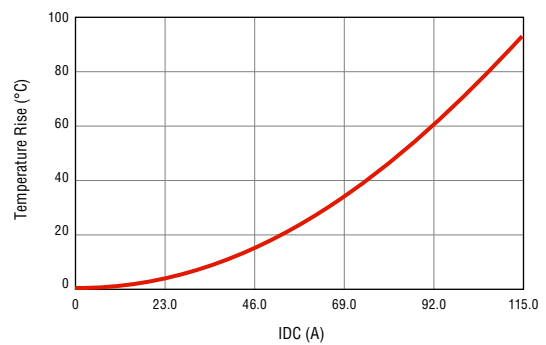
SPB1005-R12M



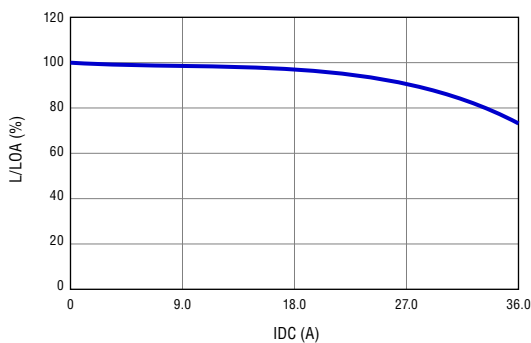
SPB1005-R15M



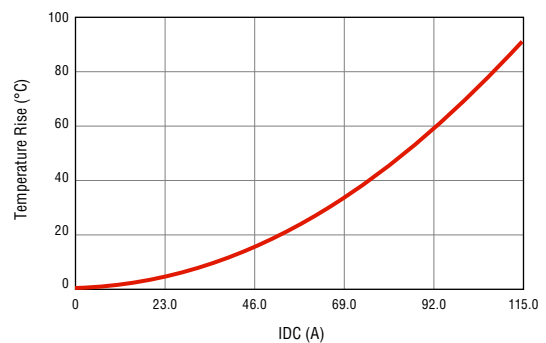
SPB1005-R15M



SPB1005-R22M



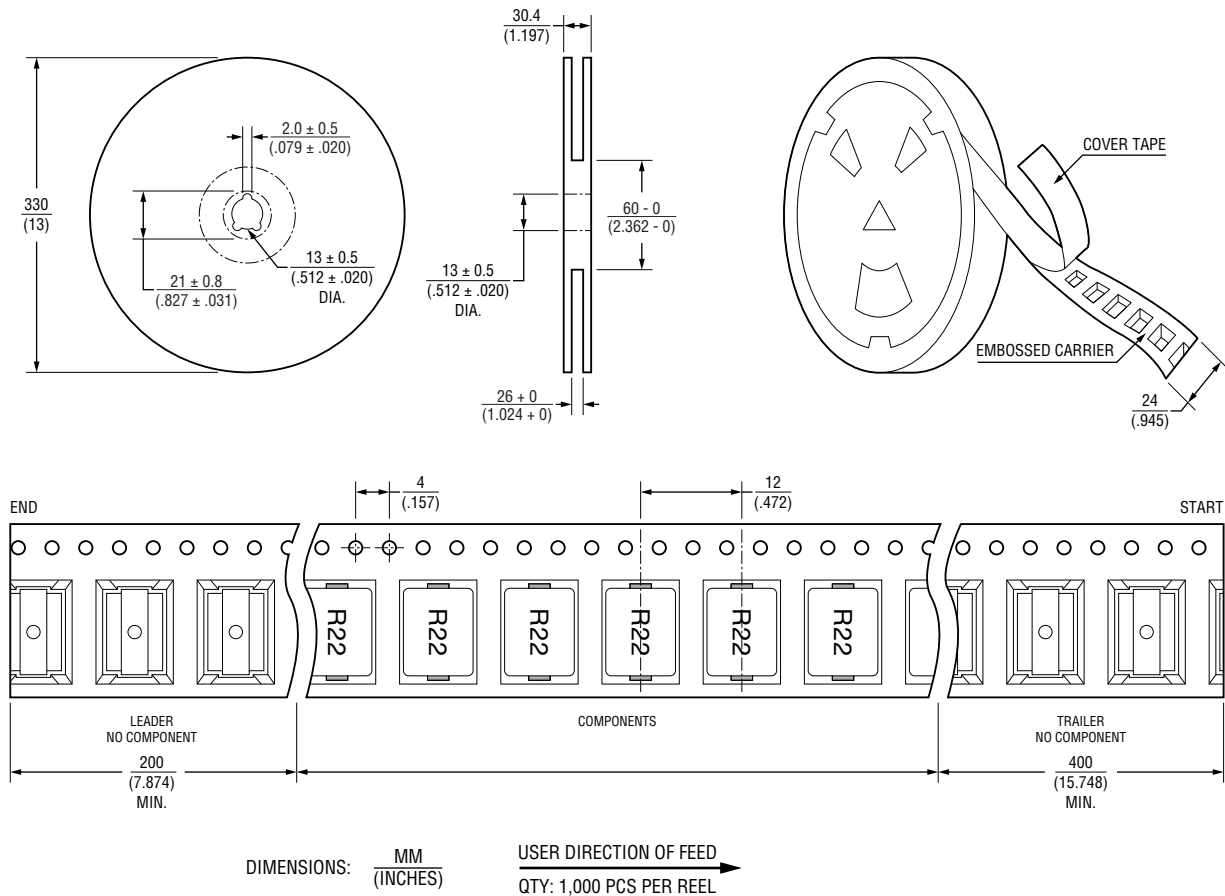
SPB1005-R22M



SPB1005 Series – Power Bead Inductors

BOURNS®

Packaging Specifications



BOURNS®

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EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

www.bourns.com

REV. 10/22

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Users should verify actual device performance in their specific applications.

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