



Features

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

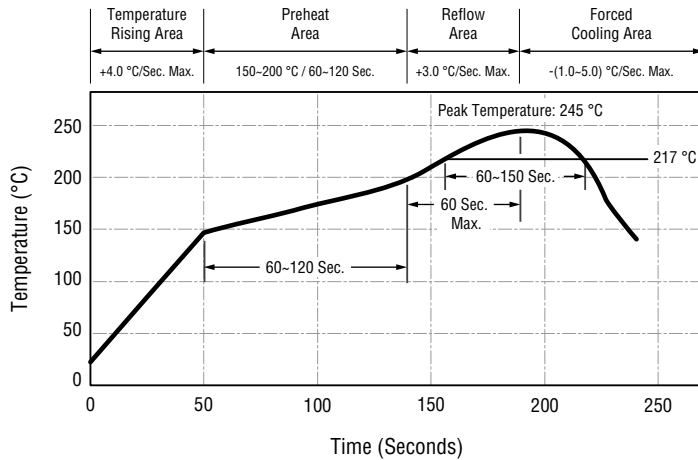
SPB1012 Series – Power Bead Inductors

Electrical Specifications @ 25 °C

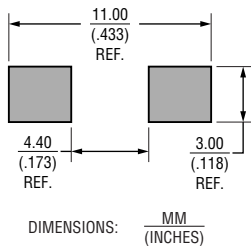
| Bourns Part No. | Inductance @ 100 kHz / 0.1 V | | DCR (mΩ) Typ. | DCR (mΩ) Max. | Irms (A) Max. | Isat (A) Typ. |
|-----------------|------------------------------|--------|---------------|---------------|---------------|---------------|
| | L (nH) | Tol. % | | | | |
| SPB1012-R10Y | 100.0 | 15 | 0.12 | 0.14 | 60.0 | 92.0 |
| SPB1012-R12Y | 120.0 | 15 | 0.12 | 0.14 | 60.0 | 78.0 |
| SPB1012-R13Y | 130.0 | 15 | 0.12 | 0.14 | 60.0 | 75.0 |
| SPB1012-R15Y | 150.0 | 15 | 0.12 | 0.14 | 60.0 | 70.0 |
| SPB1012-R33Y | 330.0 | 15 | 0.12 | 0.14 | 60.0 | 28.0 |

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

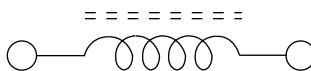


How to Order

SPB1012 - R10Y

Model _____
 Value Code (see table) _____

Electrical Schematic



Additional Information

Click these links for more information:



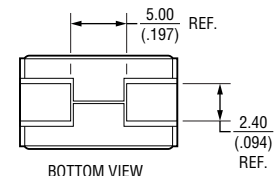
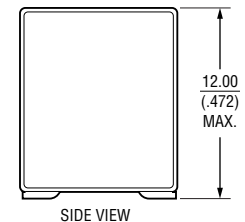
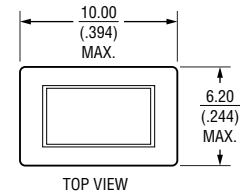
General Specifications

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 350 pcs. per 13-inch reel

Product Dimensions



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

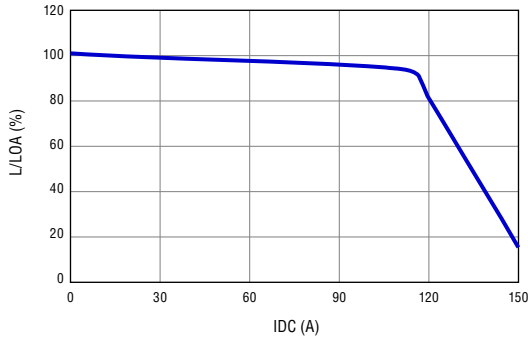


WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

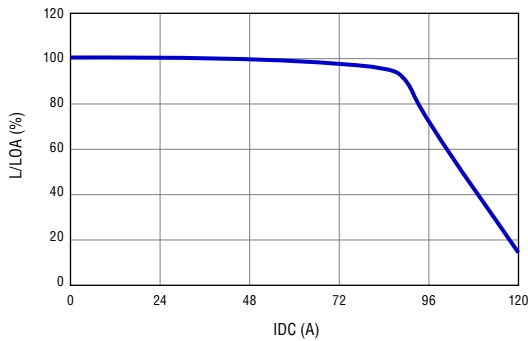
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 ** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less. Specifications are 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

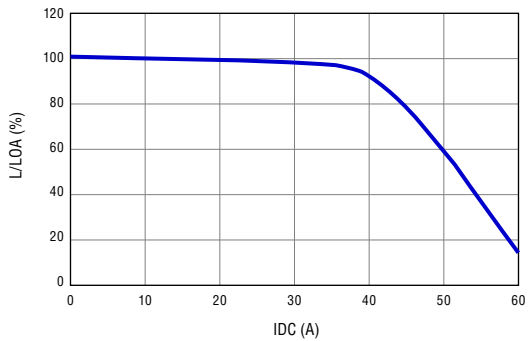
SPB1012-R10Y



SPB1012-R15Y

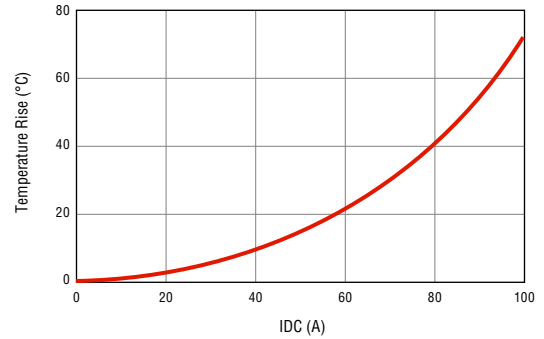


SPB1012-R33Y

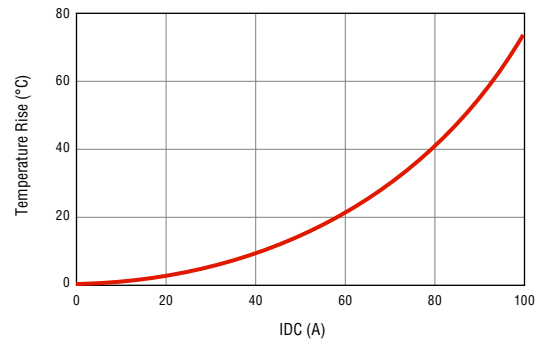


Temperature Rise vs. Current Plots

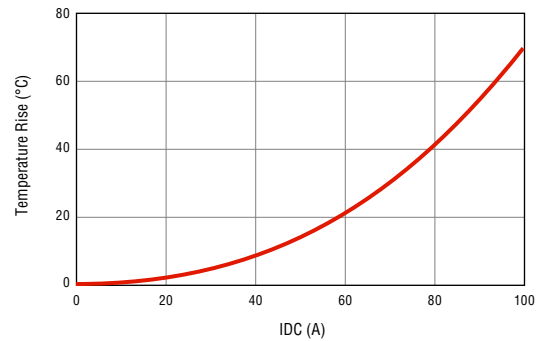
SPB1012-R10Y



SPB1012-R15Y



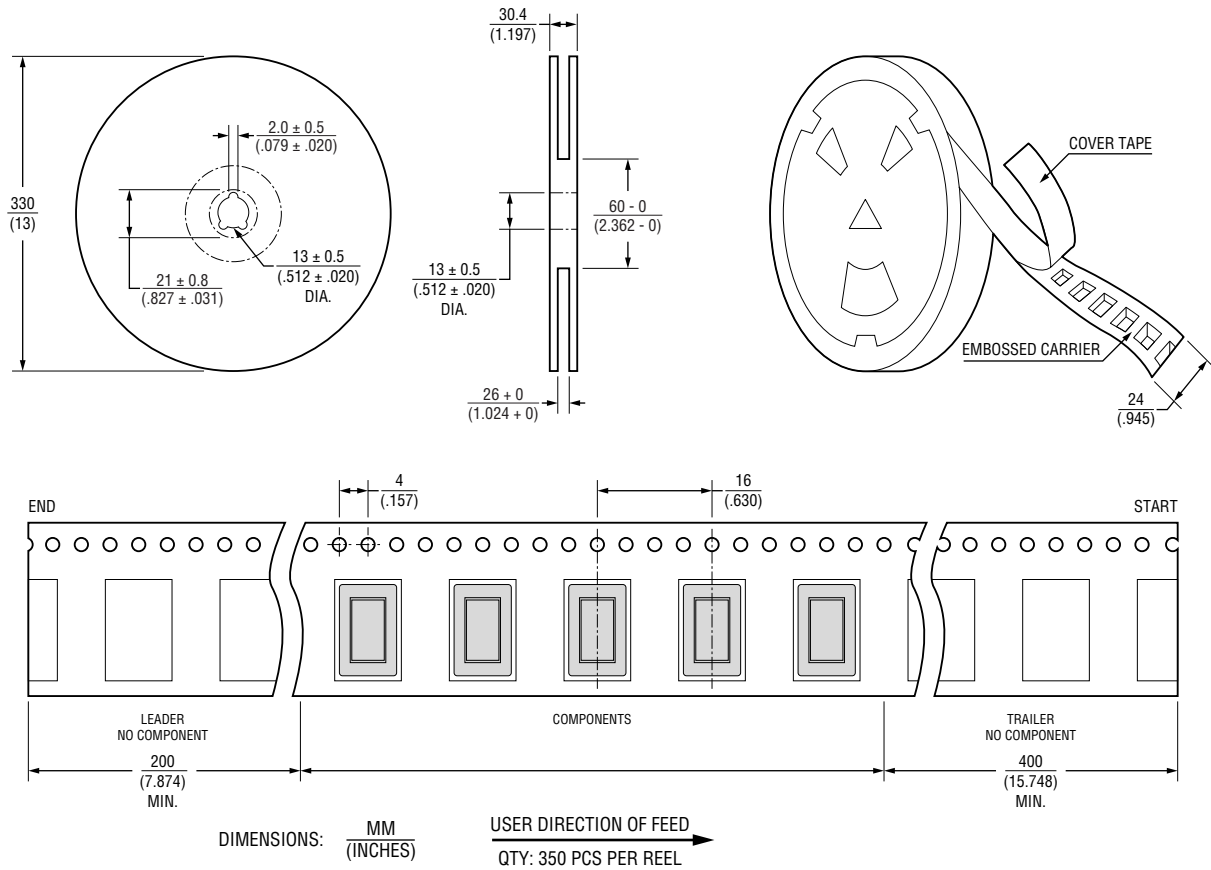
SPB1012-R33Y



SPB1012 Series – Power Bead Inductors

BOURNS®

Packaging Specifications



BOURNS®

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www.bourns.com

REV. 10/22

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Users should verify actual device performance in their specific applications.

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