BOURNS®

Features

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

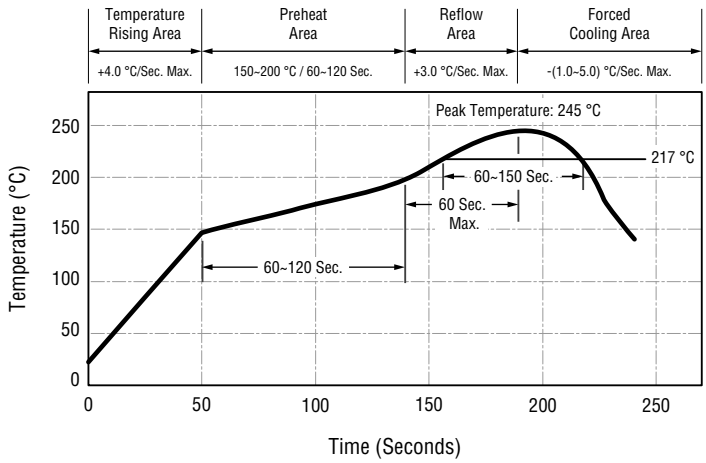
SPB1005 Series – Power Bead Inductors

Electrical Specifications @ 25 °C

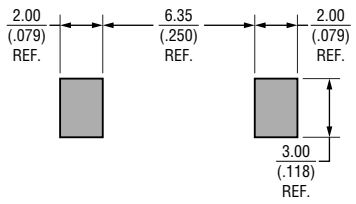
Bourns Part No.	Inductance @ 100 kHz / 0.1 V		DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (A) Typ.	Isat (A) Typ.
	L (nH)	Tol. %				
SPB1005-R10M	100.0	20	0.21	0.35	53.0	73.0
SPB1005-R12M	120.0	20	0.21	0.35	53.0	60.0
SPB1005-R15M	150.0	20	0.21	0.35	53.0	47.0
SPB1005-R22M	220.0	20	0.21	0.35	53.0	33.0

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



DIMENSIONS: MM / (INCHES)

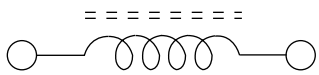
How to Order

SPB1005 - R10M

Model

Value Code (see table)

Electrical Schematic



Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

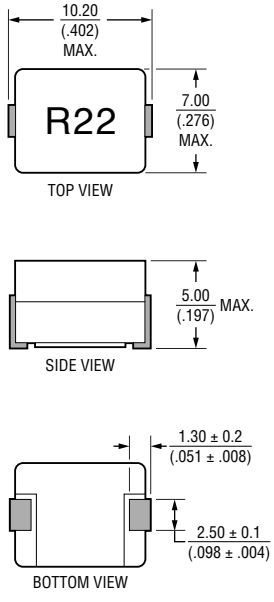
Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature
(Component Mounted)
..... -40 °C to +125 °C
Temperature Rise .... 40 °C at rated Irms[1]
Rated Current
..... Inductance drops 20 % at Isat
Moisture Sensitivity Level 1
ESD Classification (HBM) ..... N/A

[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



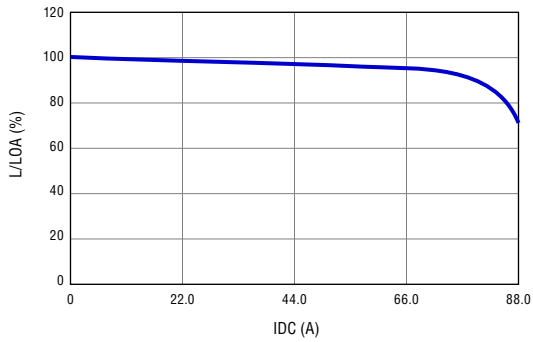
DIMENSIONS: MM / (INCHES)

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

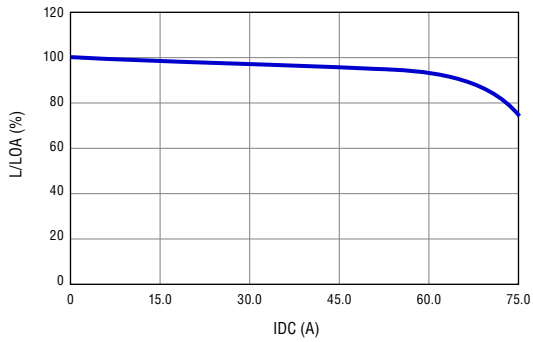
* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Typical Percentage of Inductance vs. Current Curves

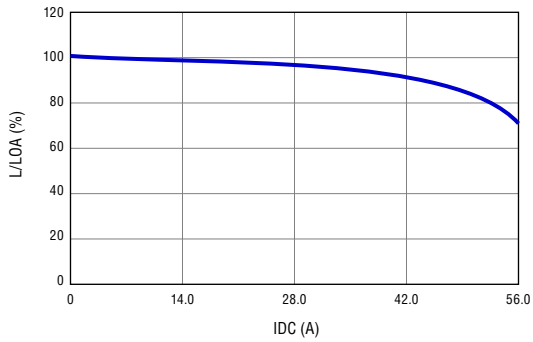
SPB1005-R10M



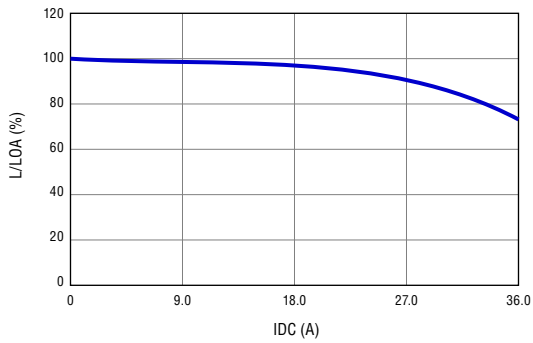
SPB1005-R12M



SPB1005-R15M

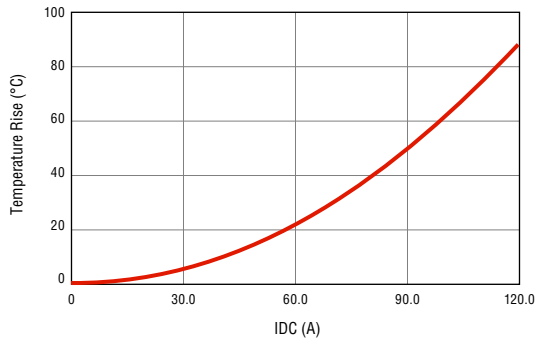


SPB1005-R22M

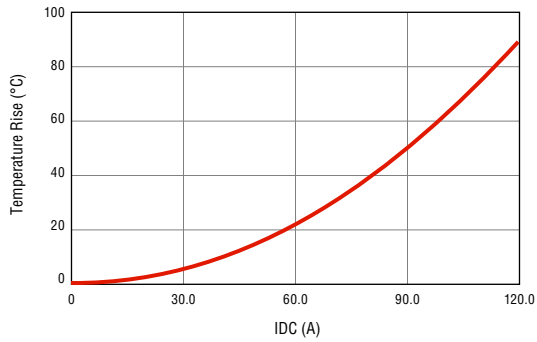


Temperature Rise vs. Current Plots

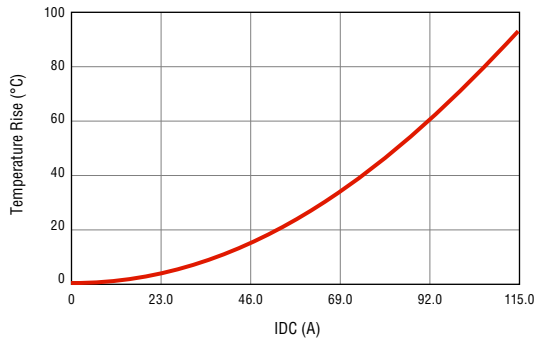
SPB1005-R10M



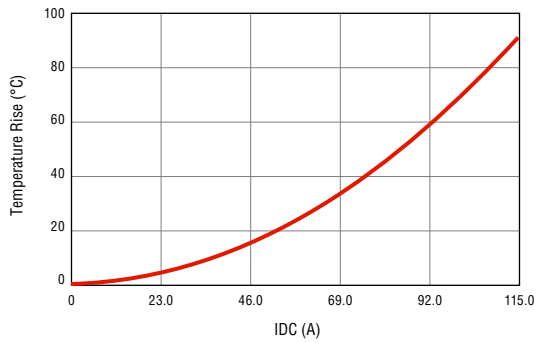
SPB1005-R12M



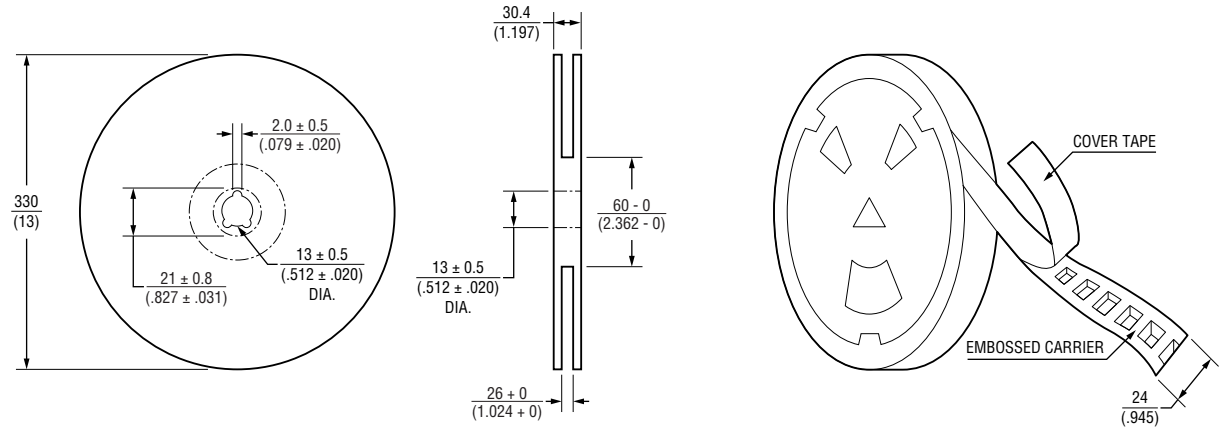
SPB1005-R15M



SPB1005-R22M



Packaging Specifications



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REV. 10/22

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