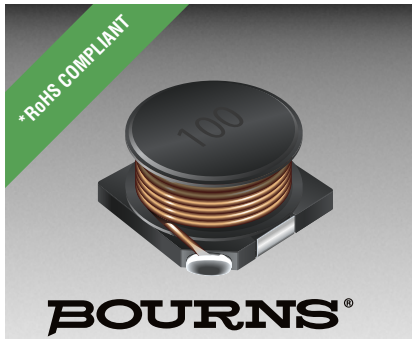




**THE DATASHEET OF
SDR7045-680K**





Features

- Available in E6 values
- Current rating to 3.8 amps
- RoHS compliant*

Applications

- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD TVs

SDR7045 Series - SMD Power Inductors

Electrical Specifications

| Bourns Part Number | Inductance 100 kHz | | Q Typ. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|--------------------|--------------------|--------|--------|----------------------|----------------|--------------|----------------|----------------|
| | (μH) | Tol. % | | | | | | |
| SDR7045-1R2M | 1.2 | ± 20 | 25 | 7.96 | 90 | 0.022 | 3.80 | 5.00 |
| SDR7045-1R5M | 1.5 | ± 20 | 26 | 7.96 | 109 | 0.027 | 3.50 | 4.50 |
| SDR7045-2R2M | 2.2 | ± 20 | 24 | 7.96 | 79 | 0.032 | 3.30 | 4.00 |
| SDR7045-3R3M | 3.3 | ± 20 | 23 | 7.96 | 47 | 0.036 | 2.80 | 3.70 |
| SDR7045-4R7M | 4.7 | ± 20 | 23 | 7.96 | 38 | 0.042 | 2.60 | 3.40 |
| SDR7045-6R8M | 6.8 | ± 20 | 22 | 7.96 | 35 | 0.054 | 2.25 | 2.70 |
| SDR7045-100M | 10.0 | ± 20 | 28 | 2.52 | 23 | 0.070 | 2.00 | 2.30 |
| SDR7045-150M | 15.0 | ± 20 | 24 | 2.52 | 19 | 0.086 | 1.60 | 1.90 |
| SDR7045-220M | 22.0 | ± 20 | 26 | 2.52 | 18 | 0.125 | 1.40 | 1.62 |
| SDR7045-330M | 33.0 | ± 20 | 20 | 2.52 | 18 | 0.150 | 1.22 | 1.32 |
| SDR7045-470K | 47.0 | ± 10 | 21 | 2.52 | 11 | 0.230 | 1.00 | 1.10 |
| SDR7045-680K | 68.0 | ± 10 | 17 | 2.52 | 11 | 0.280 | 0.90 | 0.92 |
| SDR7045-101K | 100.0 | ± 10 | 17 | 0.796 | 10 | 0.430 | 0.75 | 0.72 |
| SDR7045-151K | 150.0 | ± 10 | 17 | 0.796 | 8 | 0.580 | 0.62 | 0.58 |
| SDR7045-221K | 220.0 | ± 10 | 22 | 0.796 | 6 | 0.930 | 0.50 | 0.48 |
| SDR7045-331K | 330.0 | ± 10 | 20 | 0.796 | 6 | 1.240 | 0.42 | 0.40 |
| SDR7045-471K | 470.0 | ± 10 | 20 | 0.796 | 4 | 1.850 | 0.34 | 0.30 |
| SDR7045-681K | 680.0 | ± 10 | 18 | 0.796 | 4 | 2.400 | 0.30 | 0.26 |
| SDR7045-102K | 1000.0 | ± 10 | 48 | 0.252 | 3 | 4.000 | 0.22 | 0.20 |

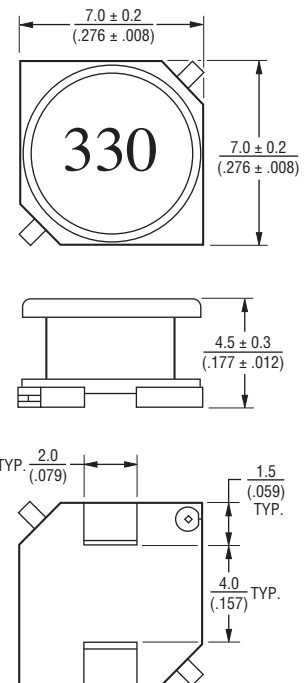
General Specifications

Test Voltage 0.1 V
 Reflow Soldering .. 230 °C, 50 sec. max.
 Operating Temperature
 -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature.. -40 °C to +125 °C
 Resistance to Soldering Heat
 260 °C for 10 sec.
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

Materials

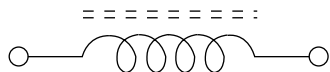
Core Ferrite DR
 Wire Enamelled copper wire 130
 Terminal..... Cu/Sn
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temperature Rise
 40 °C max. at rated I rms
 Packaging..... 1000 pcs. per reel

Product Dimensions

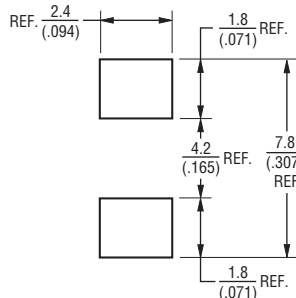


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Electrical Schematic



Recommended Layout



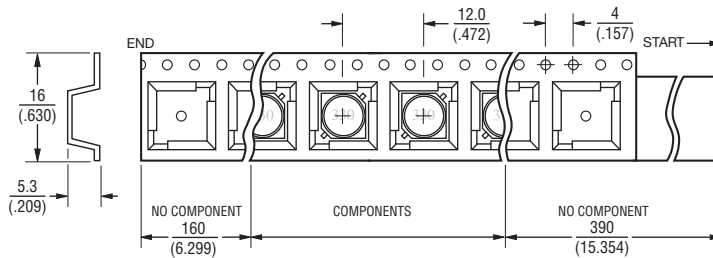
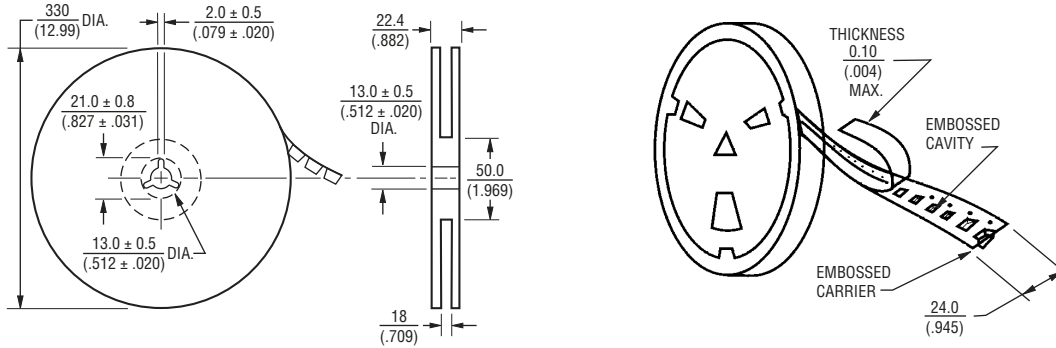
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. 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

SDR705 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED →

QTY: 1000 PCS. PER REEL

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

BOURNS®

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EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

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REV. 03/18

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Users should verify actual device performance in their specific applications.

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-  Alternative Solution
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