



**THE DATASHEET OF
SDR1045-681K**





Features

- Available in E6 values
- Current rating to 4.8 amps
- Mounting height 4.8 mm maximum
- RoHS compliant*

Applications

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

SDR1045 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. % | | | | | | |
| SDR1045-2R7M | 2.7 | ± 20 | 25 | 7.96 | 68.7 | 0.026 | 4.80 | 6.20 |
| SDR1045-4R5M | 4.5 | ± 20 | 25 | 7.96 | 44.2 | 0.033 | 4.20 | 5.20 |
| SDR1045-6R8M | 6.8 | ± 20 | 22 | 7.96 | 35.8 | 0.040 | 3.50 | 4.20 |
| SDR1045-100M | 10.0 | ± 20 | 26 | 2.52 | 27.8 | 0.064 | 3.20 | 3.60 |
| SDR1045-150M | 15.0 | ± 20 | 26 | 2.52 | 23.7 | 0.100 | 2.50 | 3.00 |
| SDR1045-220M | 22.0 | ± 20 | 22 | 2.52 | 19.4 | 0.145 | 2.20 | 2.60 |
| SDR1045-330M | 33.0 | ± 20 | 20 | 2.52 | 15.8 | 0.220 | 1.90 | 2.10 |
| SDR1045-470M | 47.0 | ± 20 | 21 | 2.52 | 13.6 | 0.270 | 1.60 | 1.85 |
| SDR1045-680M | 68.0 | ± 20 | 21 | 2.52 | 11.1 | 0.360 | 1.30 | 1.50 |
| SDR1045-101K | 100.0 | ± 10 | 14 | 0.796 | 9.7 | 0.540 | 1.10 | 1.30 |
| SDR1045-151K | 150.0 | ± 10 | 16 | 0.796 | 7.1 | 0.700 | 0.85 | 1.05 |
| SDR1045-221K | 220.0 | ± 10 | 15 | 0.796 | 6.4 | 1.150 | 0.72 | 0.85 |
| SDR1045-331K | 330.0 | ± 10 | 12 | 0.796 | 4.6 | 1.700 | 0.62 | 0.70 |
| SDR1045-471K | 470.0 | ± 10 | 12 | 0.796 | 4.2 | 2.250 | 0.52 | 0.58 |
| SDR1045-681K | 680.0 | ± 10 | 13 | 0.796 | 3.6 | 3.300 | 0.43 | 0.46 |
| SDR1045-102K | 1000.0 | ± 10 | 25 | 0.252 | 2.9 | 4.700 | 0.38 | 0.40 |

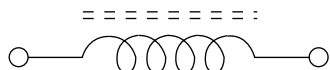
General Specifications

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

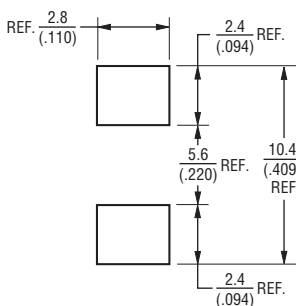
Materials

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 Irms
 Packaging..... 700 pcs. per reel

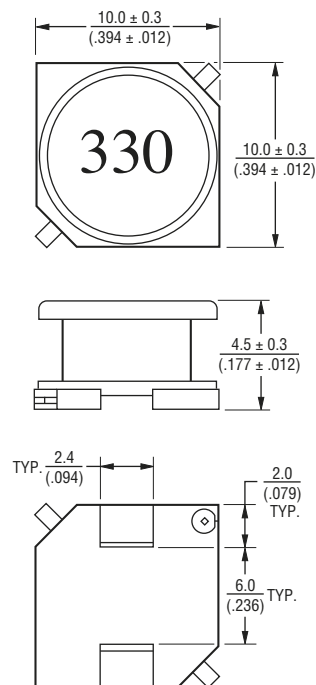
Electrical Schematic



Recommended Layout



Product Dimensions



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



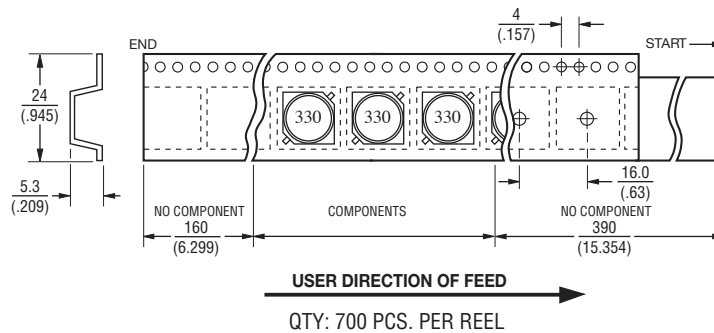
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

* 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

SDR1045 Series - SMD Power Inductors

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Packaging Specifications



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

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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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