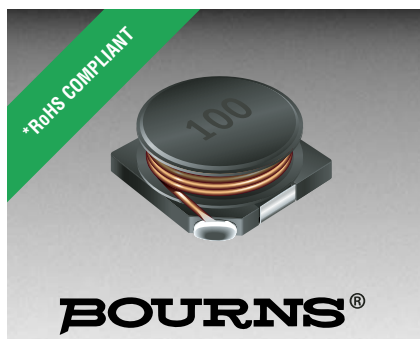




## Features

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

## Applications

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

# SDR1045 Series - SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 kHz |          | Q Typ. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. ( $\Omega$ ) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|--------------------|----------|--------|----------------------|----------------|-----------------------|----------------|----------------|
|                 | ( $\mu$ H)         | Tol. %   |        |                      |                |                       |                |                |
| SDR1045-2R7M    | 2.7                | $\pm 20$ | 25     | 7.96                 | 68.7           | 0.026                 | 4.80           | 6.20           |
| SDR1045-4R5M    | 4.5                | $\pm 20$ | 25     | 7.96                 | 44.2           | 0.033                 | 4.20           | 5.20           |
| SDR1045-6R8M    | 6.8                | $\pm 20$ | 22     | 7.96                 | 35.8           | 0.040                 | 3.50           | 4.20           |
| SDR1045-100M    | 10.0               | $\pm 20$ | 26     | 2.52                 | 27.8           | 0.064                 | 3.20           | 3.60           |
| SDR1045-150M    | 15.0               | $\pm 20$ | 26     | 2.52                 | 23.7           | 0.100                 | 2.50           | 3.00           |
| SDR1045-220M    | 22.0               | $\pm 20$ | 22     | 2.52                 | 19.4           | 0.145                 | 2.20           | 2.60           |
| SDR1045-330M    | 33.0               | $\pm 20$ | 20     | 2.52                 | 15.8           | 0.220                 | 1.90           | 2.10           |
| SDR1045-470M    | 47.0               | $\pm 20$ | 21     | 2.52                 | 13.6           | 0.270                 | 1.60           | 1.85           |
| SDR1045-680M    | 68.0               | $\pm 20$ | 21     | 2.52                 | 11.1           | 0.360                 | 1.30           | 1.50           |
| SDR1045-101K    | 100.0              | $\pm 10$ | 14     | 0.796                | 9.7            | 0.540                 | 1.10           | 1.30           |
| SDR1045-151K    | 150.0              | $\pm 10$ | 16     | 0.796                | 7.1            | 0.700                 | 0.85           | 1.05           |
| SDR1045-221K    | 220.0              | $\pm 10$ | 15     | 0.796                | 6.4            | 1.150                 | 0.72           | 0.85           |
| SDR1045-331K    | 330.0              | $\pm 10$ | 12     | 0.796                | 4.6            | 1.700                 | 0.62           | 0.70           |
| SDR1045-471K    | 470.0              | $\pm 10$ | 12     | 0.796                | 4.2            | 2.250                 | 0.52           | 0.58           |
| SDR1045-681K    | 680.0              | $\pm 10$ | 13     | 0.796                | 3.6            | 3.300                 | 0.43           | 0.46           |
| SDR1045-102K    | 1000.0             | $\pm 10$ | 25     | 0.252                | 2.9            | 4.700                 | 0.38           | 0.40           |

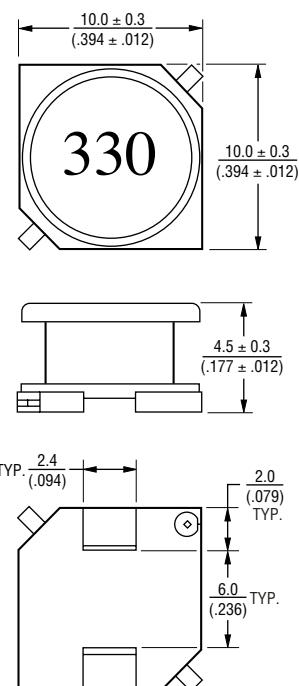
## General Specifications

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.

## Materials

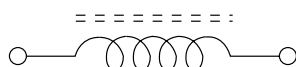
Core .....Ferrite DR  
 Wire .....Enamelled copper wire 130  
 Terminal.....Cu/Ni/Sn  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise .....40 °C max.  
 at rated I rms  
 Packaging .....700 pcs. per reel

## Product Dimensions

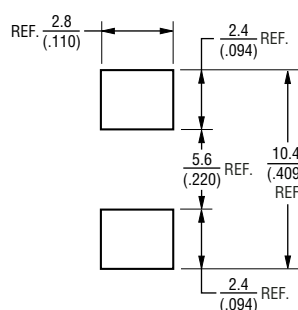


DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

## Electrical Schematic



## Recommended Layout

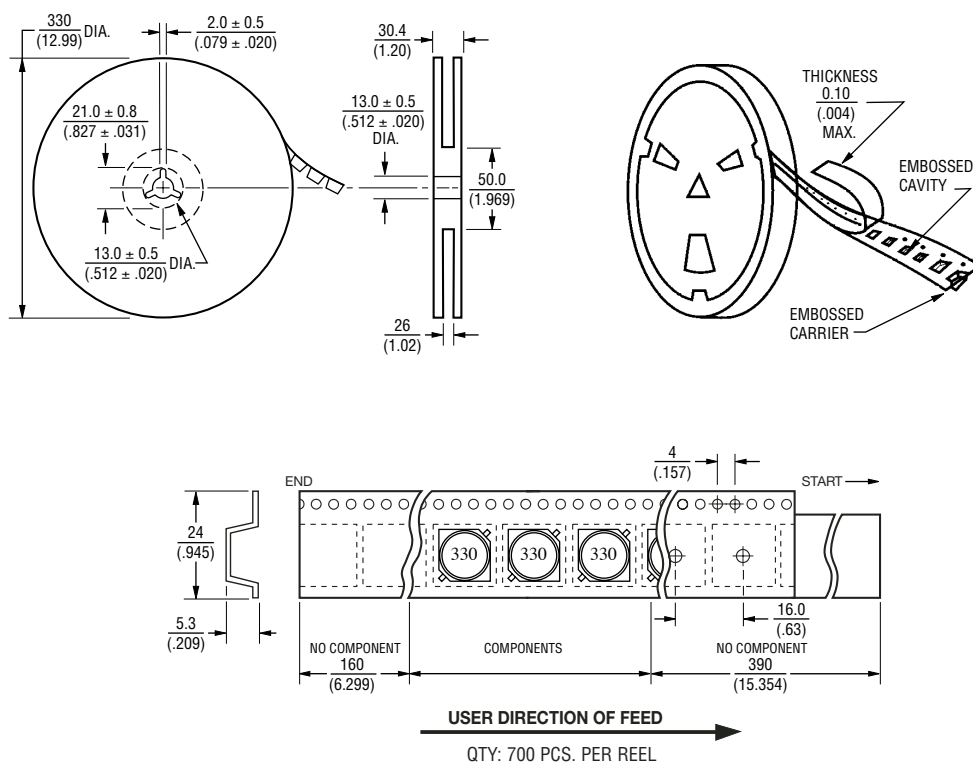


\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

# SDR1045 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



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