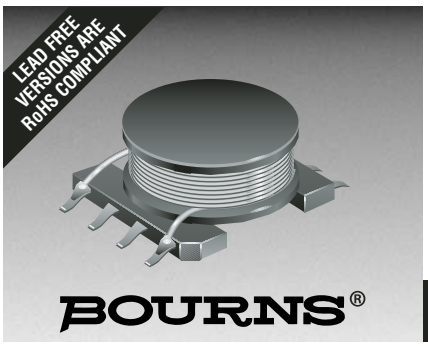



BOURNS®

## Features

- High inductance up to 1.2 mH
- E12 series available
- Wide inductance range
- Lead free version available (see How to Order)
- Lead free versions are RoHS compliant*

## Applications

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

# SDR0906 Series - SMD Power Inductors

### Electrical Specifications

| Bourns Part No. | Inductance 1kHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC (Ω) | I rms Max. (A) | I sat Typ. (A) |
|---|---|---|---|---|---|---|---|---|
| | (µH) | Tol. % | | | | | | |
| SDR0906-2R2M_ | 2.2 | ± 20 | 30 | 7.96 | 105 | 0.03 | 4.00 | 6.70 |
| SDR0906-2R7M_ | 2.7 | ± 20 | 30 | 7.96 | 84 | 0.04 | 3.50 | 6.50 |
| SDR0906-3R9M_ | 3.9 | ± 20 | 28 | 7.96 | 77 | 0.04 | 3.30 | 5.50 |
| SDR0906-4R7M_ | 4.7 | ± 20 | 27 | 7.96 | 55 | 0.05 | 3.00 | 4.80 |
| SDR0906-5R6M_ | 5.6 | ± 20 | 28 | 7.96 | 42 | 0.06 | 2.80 | 4.50 |
| SDR0906-6R8M_ | 6.8 | ± 20 | 27 | 7.96 | 36 | 0.06 | 2.60 | 4.20 |
| SDR0906-8R2M_ | 8.2 | ± 20 | 27 | 7.96 | 29 | 0.07 | 2.40 | 4.00 |
| SDR0906-100 M_ | 10 | ± 20 | 35 | 2.52 | 25 | 0.09 | 2.10 | 3.20 |
| SDR0906-120 M_ | 12 | ± 20 | 35 | 2.52 | 23 | 0.10 | 2.00 | 3.10 |
| SDR0906-150 M_ | 15 | ± 20 | 35 | 2.52 | 22 | 0.11 | 1.90 | 2.90 |
| SDR0906-180 M_ | 18 | ± 20 | 35 | 2.52 | 19 | 0.12 | 1.80 | 2.40 |
| SDR0906-220 M_ | 22 | ± 20 | 35 | 2.52 | 16 | 0.13 | 1.60 | 2.40 |
| SDR0906-270 K_ | 27 | ± 10 | 35 | 2.52 | 15 | 0.15 | 1.40 | 2.20 |
| SDR0906-330 K_ | 33 | ± 10 | 35 | 2.52 | 14 | 0.18 | 1.25 | 2.00 |
| SDR0906-390 K_ | 39 | ± 10 | 25 | 2.52 | 13 | 0.19 | 1.15 | 1.60 |
| SDR0906-470 K_ | 47 | ± 10 | 25 | 2.52 | 12 | 0.23 | 1.10 | 1.50 |
| SDR0906-560 K_ | 56 | ± 10 | 25 | 2.52 | 12 | 0.26 | 1.05 | 1.40 |
| SDR0906-680 K_ | 68 | ± 10 | 20 | 2.52 | 10 | 0.31 | 1.00 | 1.40 |
| SDR0906-820 K_ | 82 | ± 10 | 20 | 2.52 | 9 | 0.33 | 0.95 | 1.30 |
| SDR0906-101 K_ | 100 | ± 10 | 15 | 0.796 | 8 | 0.39 | 0.90 | 1.10 |
| SDR0906-121 K_ | 120 | ± 10 | 15 | 0.796 | 8 | 0.43 | 0.85 | 1.10 |
| SDR0906-151 K_ | 150 | ± 10 | 15 | 0.796 | 7 | 0.56 | 0.75 | 0.90 |
| SDR0906-181 K_ | 180 | ± 10 | 15 | 0.796 | 6 | 0.64 | 0.70 | 0.82 |
| SDR0906-221 K_ | 220 | ± 10 | 20 | 0.796 | 6 | 0.85 | 0.60 | 0.80 |
| SDR0906-271 K_ | 270 | ± 10 | 20 | 0.796 | 5 | 1.00 | 0.55 | 0.76 |
| SDR0906-331 K_ | 330 | ± 10 | 15 | 0.796 | 5 | 1.27 | 0.50 | 0.65 |
| SDR0906-391 K_ | 390 | ± 10 | 15 | 0.796 | 5 | 1.40 | 0.45 | 0.64 |
| SDR0906-471 K_ | 470 | ± 10 | 15 | 0.796 | 5 | 1.63 | 0.40 | 0.57 |
| SDR0906-561 K_ | 560 | ± 10 | 15 | 0.796 | 4 | 2.10 | 0.32 | 0.53 |
| SDR0906-681 K_ | 680 | ± 10 | 15 | 0.796 | 4 | 2.40 | 0.28 | 0.46 |
| SDR0906-821 K_ | 820 | ± 10 | 15 | 0.796 | 3 | 2.75 | 0.24 | 0.36 |
| SDR0906-102 K_ | 1000 | ± 10 | 60 | 0.252 | 2 | 3.50 | 0.22 | 0.35 |
| SDR0906-122 K_ | 1200 | ± 10 | 60 | 0.252 | 2 | 4.00 | 0.20 | 0.28 |
| SDR0906-152 K_ | 1500 | ± 10 | 70 | 0.252 | 2 | 5.00 | 0.18 | 0.26 |
| SDR0906-182 K_ | 1800 | ± 10 | 60 | 0.252 | 2 | 5.80 | 0.17 | 0.24 |
| SDR0906-222 K_ | 2200 | ± 10 | 94 | 0.252 | 2 | 8.00 | 0.14 | 0.23 |
| SDR0906-272 K_ | 2700 | ± 10 | 90 | 0.252 | 1 | 9.00 | 0.13 | 0.23 |
| SDR0906-332 K_ | 3300 | ± 10 | 78 | 0.252 | 1 | 10.00 | 0.12 | 0.18 |
| SDR0906-392 K_ | 3900 | ± 10 | 96 | 0.252 | 1 | 13.50 | 0.10 | 0.18 |
| SDR0906-472 K_ | 4700 | ± 10 | 86 | 0.252 | 1 | 15.00 | 0.09 | 0.16 |
| SDR0906-562 K_ | 5600 | ± 10 | 100 | 0.252 | 1 | 20.00 | 0.07 | 0.15 |
| SDR0906-682 K_ | 6800 | ± 10 | 90 | 0.252 | 1 | 23.00 | 0.06 | 0.14 |
| SDR0906-822 K_ | 8200 | ± 10 | 100 | 0.252 | 1 | 28.00 | 0.05 | 0.12 |
| SDR0906-103 K_ | 10000 | ± 10 | 100 | 0.0796 | 1 | 33.00 | 0.04 | 0.10 |

Multiple windings possible (up to four windings).

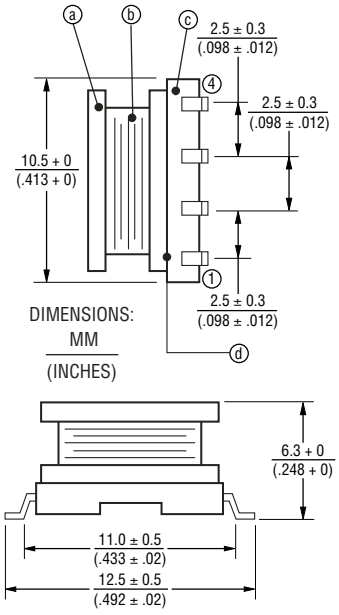
### General Specifications

Test Frequency.....1 KHz
Test Voltage.....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 5 sec.

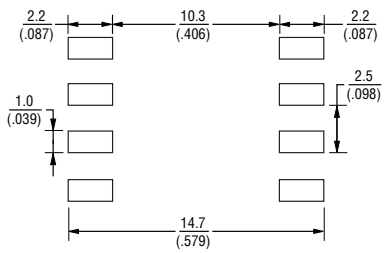
### Materials

Core .....Ferrite DR core
Wire .....Enameled copper wire
Base.....LCP
Adhesive .....Epoxy resin
Rated Current
.....Ind. drop 10 % typ. at Isat
Temperature Rise
.....40 °C max. at rated Irms
Packaging.....600 pcs. per reel

### Product Dimensions




### Recommended Layout




### Electrical Schematic

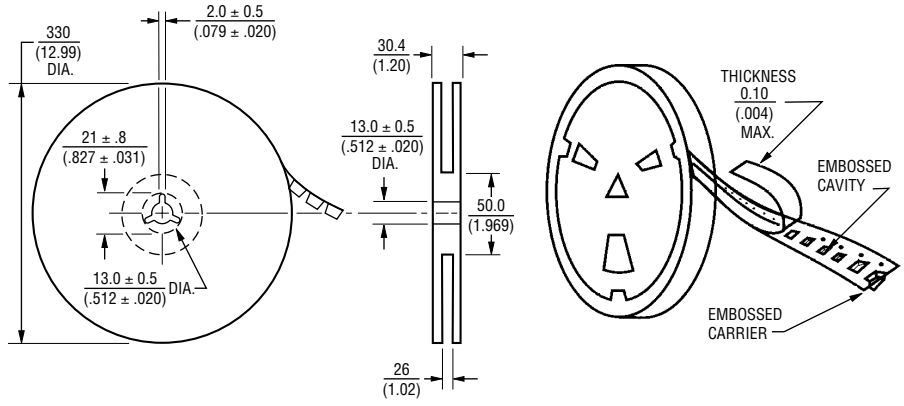

### How to Order

**SDR0906 - 100M** __

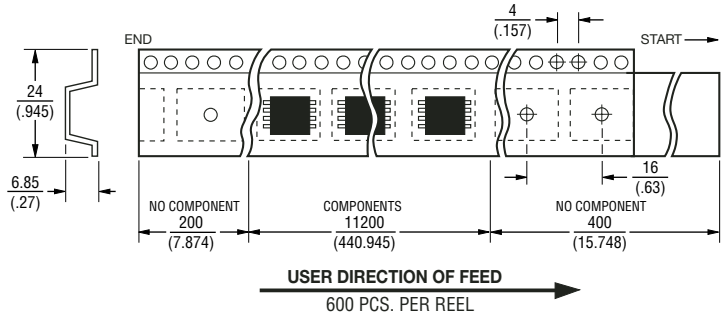
Model
Value/Tolerance: from table
Termination
L = Cu/Ni/Sn
Blank = Cu/Ni/SnPb

*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.

## Packaging Specifications



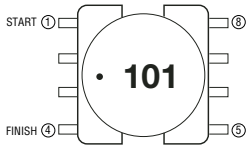

DIMENSIONS: MM / (INCHES)



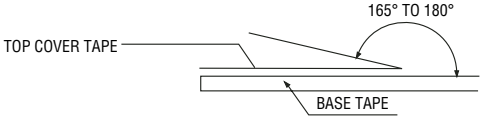

## Materials

Paper
Plastics

## Typical Part Marking




## Strength Of Cover Tape




The force for tearing off cover tape is 10 to 130 grams in the arrow direction.