



## Features

- Available in E12 series
- Small design of only 13 mm maximum diameter
- RoHS compliant\*

## Applications

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

# SDR1307 Series - SMD Power Inductors

### Electrical Specifications

| Bourns Part No. | Inductance 100 kHz |        | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC (mΩ) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|--------------------|--------|--------|----------------------|----------------|----------|----------------|----------------|
|                 | (μH)               | Tol. % |        |                      |                |          |                |                |
| SDR1307-1R5ML   | 1.5                | ± 20   | 20     | 7.96                 | 65.0           | 5.0      | 9.50           | 20.00          |
| SDR1307-2R2ML   | 2.2                | ± 20   | 22     | 7.96                 | 50.0           | 6.0      | 9.00           | 18.00          |
| SDR1307-2R7ML   | 2.7                | ± 20   | 24     | 7.96                 | 40.0           | 8.0      | 8.20           | 16.00          |
| SDR1307-3R3ML   | 3.3                | ± 20   | 26     | 7.96                 | 38.0           | 8.7      | 7.50           | 15.00          |
| SDR1307-4R7ML   | 4.7                | ± 20   | 25     | 7.96                 | 36.0           | 10.0     | 7.00           | 13.00          |
| SDR1307-5R6ML   | 5.6                | ± 20   | 24     | 7.96                 | 28.0           | 15.0     | 6.50           | 11.00          |
| SDR1307-6R8ML   | 6.8                | ± 20   | 24     | 7.96                 | 26.0           | 17.0     | 6.00           | 10.50          |
| SDR1307-8R2ML   | 8.2                | ± 20   | 24     | 7.96                 | 24.0           | 19.0     | 5.80           | 9.80           |
| SDR1307-100ML   | 10                 | ± 20   | 22     | 2.52                 | 22.0           | 21.0     | 5.60           | 9.20           |
| SDR1307-120ML   | 12                 | ± 20   | 25     | 2.52                 | 20.0           | 30.0     | 4.80           | 8.00           |
| SDR1307-150ML   | 15                 | ± 20   | 28     | 2.52                 | 17.0           | 34.0     | 4.50           | 7.50           |
| SDR1307-180ML   | 18                 | ± 20   | 28     | 2.52                 | 16.0           | 36.0     | 4.20           | 7.00           |
| SDR1307-220ML   | 22                 | ± 20   | 40     | 2.52                 | 15.0           | 47.0     | 3.60           | 6.50           |
| SDR1307-270ML   | 27                 | ± 20   | 35     | 2.52                 | 11.0           | 60.0     | 3.30           | 5.50           |
| SDR1307-330KL   | 33                 | ± 10   | 35     | 2.52                 | 10.0           | 65.0     | 3.10           | 5.00           |
| SDR1307-390KL   | 39                 | ± 10   | 28     | 2.52                 | 9.0            | 75.0     | 2.90           | 4.60           |
| SDR1307-470KL   | 47                 | ± 10   | 24     | 2.52                 | 7.5            | 82.0     | 2.70           | 4.20           |
| SDR1307-560KL   | 56                 | ± 10   | 22     | 2.52                 | 7.2            | 95.0     | 2.50           | 3.80           |
| SDR1307-680KL   | 68                 | ± 10   | 24     | 2.52                 | 7.0            | 120.0    | 2.30           | 3.50           |
| SDR1307-820KL   | 82                 | ± 10   | 18     | 2.52                 | 6.0            | 140.0    | 2.10           | 3.20           |
| SDR1307-101KL   | 100                | ± 10   | 25     | 0.796                | 5.8            | 180.0    | 1.90           | 3.00           |
| SDR1307-121KL   | 120                | ± 10   | 20     | 0.796                | 5.5            | 210.0    | 1.80           | 2.80           |
| SDR1307-151KL   | 150                | ± 10   | 20     | 0.796                | 4.5            | 250.0    | 1.60           | 2.60           |
| SDR1307-181KL   | 180                | ± 10   | 18     | 0.796                | 4.0            | 280.0    | 1.50           | 2.30           |
| SDR1307-221KL   | 220                | ± 10   | 15     | 0.796                | 3.8            | 360.0    | 1.30           | 2.10           |
| SDR1307-271KL   | 270                | ± 10   | 15     | 0.796                | 3.5            | 410.0    | 1.20           | 1.80           |
| SDR1307-331KL   | 330                | ± 10   | 15     | 0.796                | 3.2            | 520.0    | 1.10           | 1.60           |
| SDR1307-391KL   | 390                | ± 10   | 12     | 0.796                | 2.5            | 600.0    | 1.00           | 1.50           |
| SDR1307-471KL   | 470                | ± 10   | 12     | 0.796                | 2.2            | 720.0    | 0.90           | 1.40           |
| SDR1307-561KL   | 560                | ± 10   | 10     | 0.796                | 2.0            | 880.0    | 0.85           | 1.30           |
| SDR1307-681KL   | 680                | ± 10   | 10     | 0.796                | 1.6            | 1000.0   | 0.80           | 1.20           |
| SDR1307-821KL   | 820                | ± 10   | 10     | 0.796                | 1.5            | 1300.0   | 0.75           | 1.10           |
| SDR1307-102KL   | 1000               | ± 10   | 10     | 0.252                | 1.4            | 1600.0   | 0.65           | 1.00           |

### Electrical Schematic



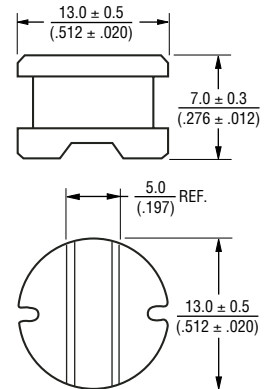
### General Specifications

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 5 sec.

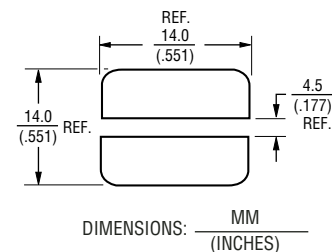
### Materials

Core .....Ferrite DR core  
 Wire .....Enamelled copper wire  
 Terminal.....Ag/Ni/Sn  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise  
 .....40 °C max. at rated Irms  
 Packaging.....400 pcs. per reel

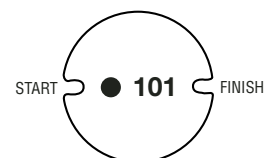
### Product Dimensions



### Recommended Layout



### Typical Part Marking



\*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.

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## Packaging Specifications

