



**THE DATASHEET OF
SDR1307-121KL**





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 communication equipment
 - Camcorders
 - LCD TVs
 - CD players

SDR1307 Series - SMD Power Inductors

Electrical Specifications

| Bourns Part Number | Inductance 100 kHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (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 |

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
 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



Electrical Schematic



Typical Part Marking



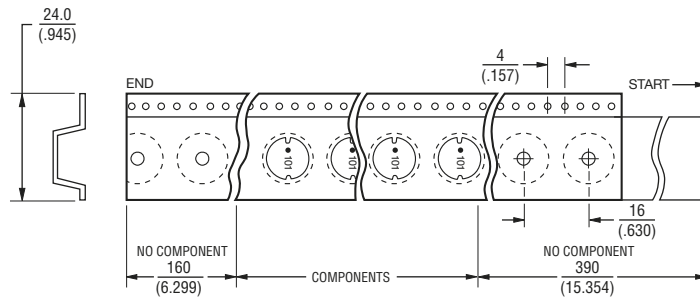
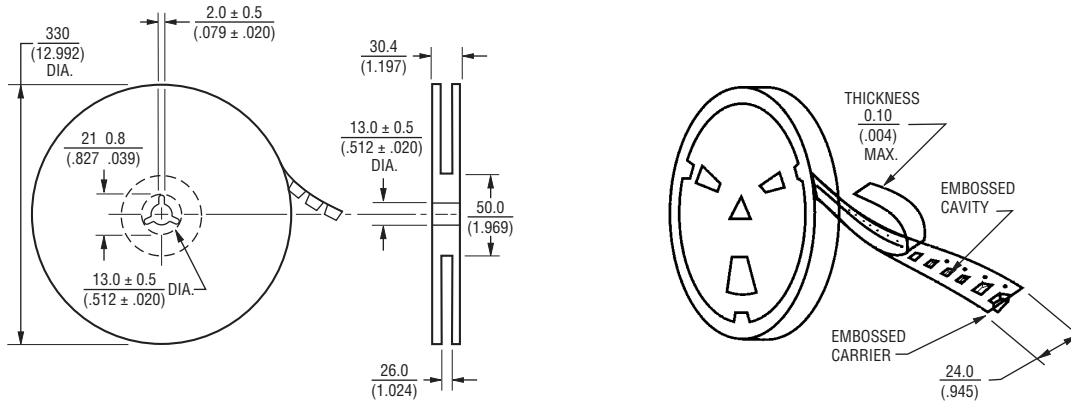
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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SDR1307 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED
 QTY: 400 PCS. PER REEL

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

BOURNS®

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