



Features

- Available in E12 series
- Small design of only 9.8 mm maximum diameter
- RoHS compliant*

Applications

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

SDR1006 Series - SMD Power Inductors

Electrical Specifications

| Bourns Part Number | Inductance 1 kHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|--------------------|---------------------|--------|-----------|----------------------------|----------------------|--------------------|----------------------|----------------------|
| | (μH) | Tol. % | | | | | | |
| SDR1006-1R5ML | 1.5 | ± 20 | 35 | 7.96 | 105 | 0.018 | 6.40 | 10.00 |
| SDR1006-2R2ML | 2.2 | ± 20 | 35 | 7.96 | 68 | 0.021 | 5.40 | 10.00 |
| SDR1006-3R3ML | 3.3 | ± 20 | 34 | 7.96 | 55 | 0.024 | 5.00 | 10.00 |
| SDR1006-3R9ML | 3.9 | ± 20 | 34 | 7.96 | 48 | 0.027 | 4.60 | 8.40 |
| SDR1006-4R7ML | 4.7 | ± 20 | 33 | 7.96 | 40 | 0.036 | 4.00 | 7.30 |
| SDR1006-5R6ML | 5.6 | ± 20 | 33 | 7.96 | 35 | 0.040 | 3.80 | 6.40 |
| SDR1006-6R8ML | 6.8 | ± 20 | 33 | 7.96 | 32 | 0.044 | 3.40 | 5.90 |
| SDR1006-8R2ML | 8.2 | ± 20 | 31 | 7.96 | 24 | 0.048 | 3.00 | 5.40 |
| SDR1006-100ML | 10 | ± 20 | 30 | 2.52 | 21 | 0.060 | 2.60 | 5.10 |
| SDR1006-120ML | 12 | ± 20 | 30 | 2.52 | 20 | 0.070 | 2.45 | 4.50 |
| SDR1006-150ML | 15 | ± 20 | 30 | 2.52 | 16 | 0.080 | 2.25 | 4.00 |
| SDR1006-180ML | 18 | ± 20 | 30 | 2.52 | 15 | 0.090 | 2.15 | 3.80 |
| SDR1006-220ML | 22 | ± 20 | 25 | 2.52 | 13 | 0.10 | 1.95 | 3.50 |
| SDR1006-270KL | 27 | ± 10 | 25 | 2.52 | 11 | 0.11 | 1.75 | 3.40 |
| SDR1006-330KL | 33 | ± 10 | 25 | 2.52 | 10 | 0.12 | 1.50 | 2.90 |
| SDR1006-390KL | 39 | ± 10 | 20 | 2.52 | 9.0 | 0.14 | 1.35 | 2.60 |
| SDR1006-470KL | 47 | ± 10 | 20 | 2.52 | 8.0 | 0.17 | 1.25 | 2.30 |
| SDR1006-560KL | 56 | ± 10 | 20 | 2.52 | 7.5 | 0.19 | 1.15 | 2.10 |
| SDR1006-680KL | 68 | ± 10 | 15 | 2.52 | 7.0 | 0.22 | 1.10 | 2.00 |
| SDR1006-820KL | 82 | ± 10 | 15 | 2.52 | 6.0 | 0.25 | 1.00 | 1.90 |
| SDR1006-101KL | 100 | ± 10 | 15 | 0.796 | 5.2 | 0.35 | 0.97 | 1.70 |
| SDR1006-121KL | 120 | ± 10 | 15 | 0.796 | 5.0 | 0.40 | 0.89 | 1.50 |
| SDR1006-151KL | 150 | ± 10 | 15 | 0.796 | 4.5 | 0.47 | 0.78 | 1.40 |
| SDR1006-181KL | 180 | ± 10 | 12 | 0.796 | 4.0 | 0.63 | 0.72 | 1.30 |
| SDR1006-221KL | 220 | ± 10 | 12 | 0.796 | 3.8 | 0.73 | 0.66 | 1.10 |
| SDR1006-271KL | 270 | ± 10 | 12 | 0.796 | 3.5 | 0.97 | 0.57 | 1.00 |
| SDR1006-331KL | 330 | ± 10 | 12 | 0.796 | 3.2 | 1.15 | 0.52 | 0.85 |
| SDR1006-391KL | 390 | ± 10 | 12 | 0.796 | 3.0 | 1.30 | 0.48 | 0.80 |
| SDR1006-471KL | 470 | ± 10 | 12 | 0.796 | 2.5 | 1.48 | 0.42 | 0.80 |
| SDR1006-561KL | 560 | ± 10 | 12 | 0.796 | 2.3 | 1.90 | 0.33 | 0.66 |
| SDR1006-681KL | 680 | ± 10 | 12 | 0.796 | 2.1 | 2.25 | 0.28 | 0.65 |
| SDR1006-821KL | 820 | ± 10 | 10 | 0.796 | 2.0 | 2.55 | 0.24 | 0.56 |
| SDR1006-102KL | 1000 | ± 10 | 30 | 0.252 | 1.9 | 3.10 | 0.23 | 0.53 |
| SDR1006-122KL | 1200 | ± 10 | 31 | 0.252 | 1.8 | 4.20 | 0.21 | 0.48 |
| SDR1006-152KL | 1500 | ± 10 | 31 | 0.252 | 1.7 | 5.00 | 0.19 | 0.45 |
| SDR1006-182KL | 1800 | ± 10 | 31 | 0.252 | 1.6 | 6.80 | 0.17 | 0.38 |
| SDR1006-222KL | 2200 | ± 10 | 31 | 0.252 | 1.5 | 7.60 | 0.16 | 0.36 |
| SDR1006-222KL | 2200 | ± 10 | 31 | 0.252 | 1.5 | 7.60 | 0.16 | 0.36 |
| SDR1006-272KL | 2700 | ± 10 | 32 | 0.252 | 1.4 | 11.60 | 0.14 | 0.33 |
| SDR1006-332KL | 3300 | ± 10 | 32 | 0.252 | 1.3 | 13.50 | 0.12 | 0.30 |
| SDR1006-392KL | 3900 | ± 10 | 32 | 0.252 | 1.2 | 14.80 | 0.11 | 0.28 |
| SDR1006-472KL | 4700 | ± 10 | 32 | 0.252 | 0.8 | 18.00 | 0.10 | 0.24 |

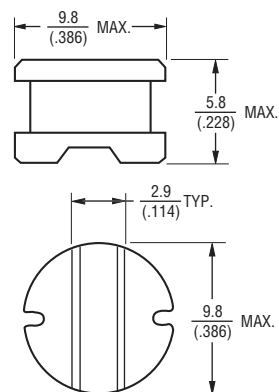
General Specifications

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.
 Moisture Sensitivity Level 1
 ESD Classification (HBM)..... N/A

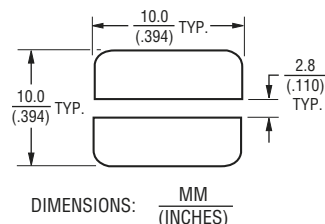
Materials

Core Ferrite DR core
 Wire Enameled copper wire
 Base DAP
 Terminal Ag/Ni/Sn
 Rated Current
 Ind. drop 10 % typ. at Isat
 Temperature Rise
 40 °C max. at rated Irms
 Packaging 800 pcs. per reel

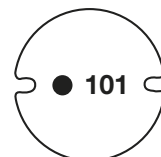
Product Dimensions



Recommended Layout



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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SDR1006 Series - SMD Power Inductors

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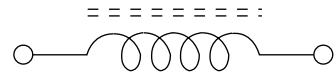
Packaging Specifications



Materials

Paper
Plastics

Electrical Schematic



Strength Of Cover Tape



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

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-  Alternative Solution
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