



**THE DATASHEET OF
SDR0906-120ML**





Features

- High inductance up to 1.2 mH
- E12 series available
- Wide inductance range
- RoHS compliant*

Applications

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

SDR0906 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. % | | | | | | |
| SDR0906-2R2ML | 2.2 | ± 20 | 30 | 7.96 | 105 | 0.03 | 4.00 | 6.70 |
| SDR0906-2R7ML | 2.7 | ± 20 | 30 | 7.96 | 84 | 0.04 | 3.50 | 6.50 |
| SDR0906-3R9ML | 3.9 | ± 20 | 28 | 7.96 | 77 | 0.04 | 3.30 | 5.50 |
| SDR0906-4R7ML | 4.7 | ± 20 | 27 | 7.96 | 55 | 0.05 | 3.00 | 4.80 |
| SDR0906-5R6ML | 5.6 | ± 20 | 28 | 7.96 | 42 | 0.06 | 2.80 | 4.50 |
| SDR0906-6R8ML | 6.8 | ± 20 | 27 | 7.96 | 36 | 0.06 | 2.60 | 4.50 |
| SDR0906-8R2ML | 8.2 | ± 20 | 27 | 7.96 | 29 | 0.07 | 2.40 | 4.00 |
| SDR0906-100ML | 10 | ± 20 | 35 | 2.52 | 25 | 0.09 | 2.10 | 3.20 |
| SDR0906-120ML | 12 | ± 20 | 35 | 2.52 | 23 | 0.10 | 2.00 | 3.10 |
| SDR0906-150ML | 15 | ± 20 | 35 | 2.52 | 22 | 0.11 | 1.90 | 2.90 |
| SDR0906-180ML | 18 | ± 20 | 35 | 2.52 | 19 | 0.12 | 1.80 | 2.40 |
| SDR0906-220ML | 22 | ± 20 | 35 | 2.52 | 16 | 0.13 | 1.60 | 2.40 |
| SDR0906-270KL | 27 | ± 10 | 35 | 2.52 | 15 | 0.15 | 1.40 | 2.20 |
| SDR0906-330KL | 33 | ± 10 | 35 | 2.52 | 14 | 0.18 | 1.25 | 2.00 |
| SDR0906-390KL | 39 | ± 10 | 25 | 2.52 | 13 | 0.19 | 1.15 | 1.60 |
| SDR0906-470KL | 47 | ± 10 | 25 | 2.52 | 12 | 0.23 | 1.10 | 1.50 |
| SDR0906-560KL | 56 | ± 10 | 25 | 2.52 | 12 | 0.26 | 1.05 | 1.40 |
| SDR0906-680KL | 68 | ± 10 | 20 | 2.52 | 10 | 0.31 | 1.00 | 1.40 |
| SDR0906-820KL | 82 | ± 10 | 20 | 2.52 | 9 | 0.33 | 0.95 | 1.30 |
| SDR0906-101KL | 100 | ± 10 | 15 | 0.796 | 8 | 0.39 | 0.90 | 1.10 |
| SDR0906-121KL | 120 | ± 10 | 15 | 0.796 | 8 | 0.43 | 0.85 | 1.10 |
| SDR0906-151KL | 150 | ± 10 | 15 | 0.796 | 7 | 0.56 | 0.75 | 0.90 |
| SDR0906-181KL | 180 | ± 10 | 15 | 0.796 | 6 | 0.64 | 0.70 | 0.82 |
| SDR0906-221KL | 220 | ± 10 | 20 | 0.796 | 6 | 0.85 | 0.60 | 0.80 |
| SDR0906-271KL | 270 | ± 10 | 20 | 0.796 | 5 | 1.00 | 0.55 | 0.76 |
| SDR0906-331KL | 330 | ± 10 | 15 | 0.796 | 5 | 1.27 | 0.50 | 0.65 |
| SDR0906-391KL | 390 | ± 10 | 15 | 0.796 | 5 | 1.40 | 0.45 | 0.64 |
| SDR0906-471KL | 470 | ± 10 | 15 | 0.796 | 5 | 1.63 | 0.40 | 0.57 |
| SDR0906-561KL | 560 | ± 10 | 15 | 0.796 | 4 | 2.10 | 0.32 | 0.53 |
| SDR0906-681KL | 680 | ± 10 | 15 | 0.796 | 4 | 2.40 | 0.28 | 0.46 |
| SDR0906-821KL | 820 | ± 10 | 15 | 0.796 | 3 | 2.75 | 0.24 | 0.36 |
| SDR0906-102KL | 1000 | ± 10 | 60 | 0.252 | 2 | 3.50 | 0.22 | 0.35 |
| SDR0906-122KL | 1200 | ± 10 | 60 | 0.252 | 2 | 4.00 | 0.20 | 0.28 |
| SDR0906-152KL | 1500 | ± 10 | 70 | 0.252 | 2 | 5.00 | 0.18 | 0.26 |
| SDR0906-182KL | 1800 | ± 10 | 60 | 0.252 | 2 | 5.80 | 0.17 | 0.24 |
| SDR0906-222KL | 2200 | ± 10 | 94 | 0.252 | 2 | 8.00 | 0.14 | 0.23 |
| SDR0906-272KL | 2700 | ± 10 | 90 | 0.252 | 1 | 9.00 | 0.13 | 0.23 |
| SDR0906-332KL | 3300 | ± 10 | 78 | 0.252 | 1 | 10.00 | 0.12 | 0.18 |
| SDR0906-392KL | 3900 | ± 10 | 96 | 0.252 | 1 | 13.50 | 0.10 | 0.18 |
| SDR0906-472KL | 4700 | ± 10 | 86 | 0.252 | 1 | 15.00 | 0.09 | 0.16 |
| SDR0906-562KL | 5600 | ± 10 | 100 | 0.252 | 1 | 20.00 | 0.07 | 0.15 |
| SDR0906-682KL | 6800 | ± 10 | 90 | 0.252 | 1 | 23.00 | 0.06 | 0.14 |
| SDR0906-822KL | 8200 | ± 10 | 100 | 0.252 | 1 | 28.00 | 0.05 | 0.12 |
| SDR0906-103KL | 10000 | ± 10 | 100 | 0.0796 | 1 | 33.00 | 0.04 | 0.10 |

Multiple windings possible (up to four windings).

Electrical Schematic



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

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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

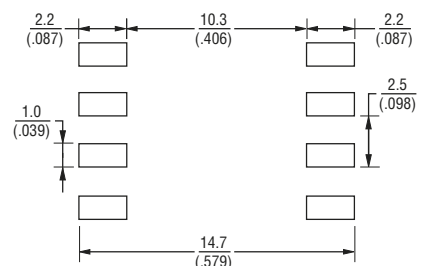
Materials

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

Product Dimensions



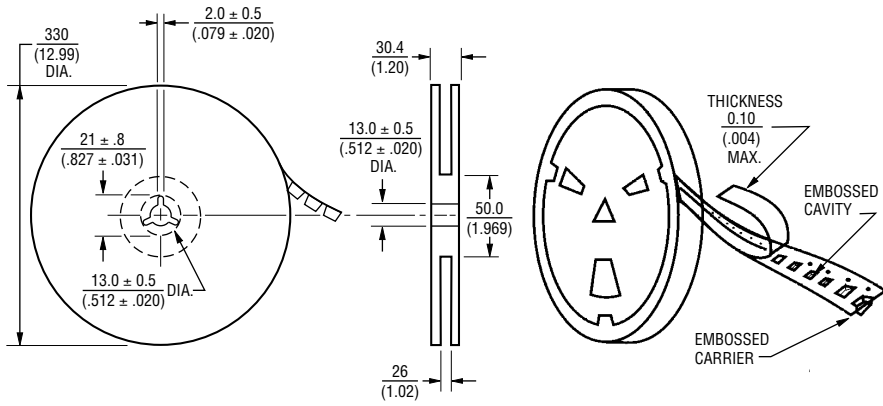
Recommended Layout



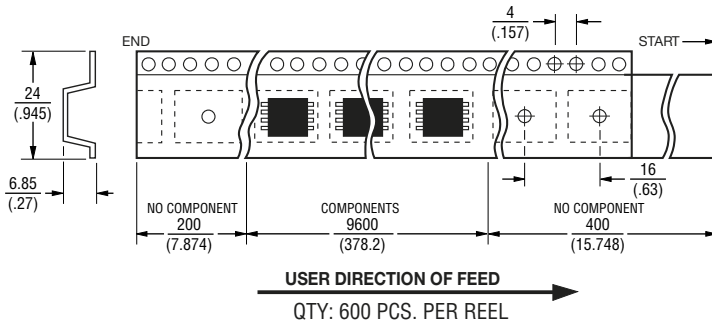
SDR0906 Series - SMD Power Inductors

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Packaging Specifications



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



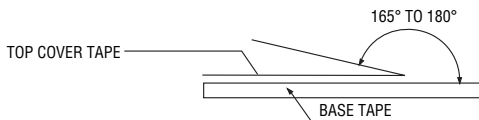
Materials

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.

BOURNS®

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REV. 03/18

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-  Alternative Solution
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