



**THE DATASHEET OF
SDR0703-680KL**





Features

- Available in E12 series
- Low height of only 2.7 mm
- High Isat of 3.2 amps
- RoHS compliant*

Applications

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

SDR0703 Series - SMD Power Inductors

Electrical Specifications

| Bourns Part Number | Inductance 100 kHz | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|--------------------|--------------------|--------|--------|----------------------|----------------|--------------|----------------|----------------|
| | (μH) | Tol. % | | | | | | |
| SDR0703-1R0ML | 1.0 | ± 20 | 25 | 7.96 | 160.0 | 0.042 | 2.20 | 3.20 |
| SDR0703-1R2ML | 1.2 | ± 20 | 25 | 7.96 | 145.0 | 0.047 | 2.00 | 3.00 |
| SDR0703-1R8ML | 1.8 | ± 20 | 25 | 7.96 | 105.0 | 0.052 | 1.90 | 2.70 |
| SDR0703-2R2ML | 2.2 | ± 20 | 24 | 7.96 | 95.0 | 0.060 | 1.80 | 2.60 |
| SDR0703-2R7ML | 2.7 | ± 20 | 23 | 7.96 | 80.0 | 0.065 | 1.70 | 2.50 |
| SDR0703-3R3ML | 3.3 | ± 20 | 23 | 7.96 | 65.0 | 0.075 | 1.65 | 2.35 |
| SDR0703-3R9ML | 3.9 | ± 20 | 22 | 7.96 | 70.0 | 0.080 | 1.58 | 2.25 |
| SDR0703-4R7ML | 4.7 | ± 20 | 20 | 7.96 | 60.0 | 0.100 | 1.50 | 2.10 |
| SDR0703-5R6ML | 5.6 | ± 20 | 20 | 7.96 | 56.0 | 0.105 | 1.40 | 2.00 |
| SDR0703-6R8ML | 6.8 | ± 20 | 20 | 7.96 | 45.0 | 0.115 | 1.30 | 1.90 |
| SDR0703-8R2ML | 8.2 | ± 20 | 20 | 7.96 | 40.0 | 0.150 | 1.10 | 1.50 |
| SDR0703-100KL | 10 | ± 10 | 23 | 2.52 | 36.0 | 0.170 | 1.00 | 1.40 |
| SDR0703-120KL | 12 | ± 10 | 20 | 2.52 | 36.0 | 0.180 | 0.90 | 1.30 |
| SDR0703-150KL | 15 | ± 10 | 23 | 2.52 | 30.0 | 0.240 | 0.75 | 1.12 |
| SDR0703-180KL | 18 | ± 10 | 20 | 2.52 | 30.0 | 0.280 | 0.70 | 1.05 |
| SDR0703-220KL | 22 | ± 10 | 20 | 2.52 | 26.0 | 0.300 | 0.65 | 0.95 |
| SDR0703-270KL | 27 | ± 10 | 20 | 2.52 | 20.0 | 0.400 | 0.60 | 0.88 |
| SDR0703-330KL | 33 | ± 10 | 17 | 2.52 | 20.0 | 0.450 | 0.56 | 0.82 |
| SDR0703-390KL | 39 | ± 10 | 18 | 2.52 | 18.0 | 0.550 | 0.50 | 0.73 |
| SDR0703-470KL | 47 | ± 10 | 20 | 2.52 | 15.0 | 0.720 | 0.40 | 0.64 |
| SDR0703-560KL | 56 | ± 10 | 20 | 2.52 | 13.0 | 0.800 | 0.39 | 0.60 |
| SDR0703-680KL | 68 | ± 10 | 18 | 2.52 | 13.0 | 0.900 | 0.38 | 0.56 |
| SDR0703-820KL | 82 | ± 10 | 18 | 2.52 | 12.0 | 1.18 | 0.33 | 0.47 |
| SDR0703-101KL | 100 | ± 10 | 33 | 0.796 | 11.0 | 1.56 | 0.27 | 0.40 |
| SDR0703-121KL | 120 | ± 10 | 32 | 0.796 | 10.0 | 1.75 | 0.26 | 0.37 |
| SDR0703-151KL | 150 | ± 10 | 30 | 0.796 | 9.0 | 2.00 | 0.25 | 0.34 |
| SDR0703-181KL | 180 | ± 10 | 33 | 0.796 | 7.0 | 2.70 | 0.19 | 0.30 |
| SDR0703-221KL | 220 | ± 10 | 31 | 0.796 | 7.0 | 3.00 | 0.18 | 0.28 |
| SDR0703-271KL | 270 | ± 10 | 30 | 0.796 | 7.0 | 3.60 | 0.17 | 0.22 |
| SDR0703-331KL | 330 | ± 10 | 33 | 0.796 | 6.0 | 4.80 | 0.16 | 0.19 |
| SDR0703-391KL | 390 | ± 10 | 36 | 0.796 | 5.5 | 6.20 | 0.14 | 0.18 |
| SDR0703-471KL | 470 | ± 10 | 33 | 0.796 | 5.0 | 7.00 | 0.13 | 0.16 |
| SDR0703-561KL | 560 | ± 10 | 36 | 0.796 | 4.2 | 9.20 | 0.11 | 0.15 |
| SDR0703-681KL | 680 | ± 10 | 32 | 0.796 | 4.0 | 10.50 | 0.10 | 0.15 |
| SDR0703-821KL | 820 | ± 10 | 32 | 0.796 | 3.6 | 12.00 | 0.09 | 0.14 |
| SDR0703-102KL | 1000 | ± 10 | 30 | 0.252 | 3.2 | 14.20 | 0.08 | 0.13 |

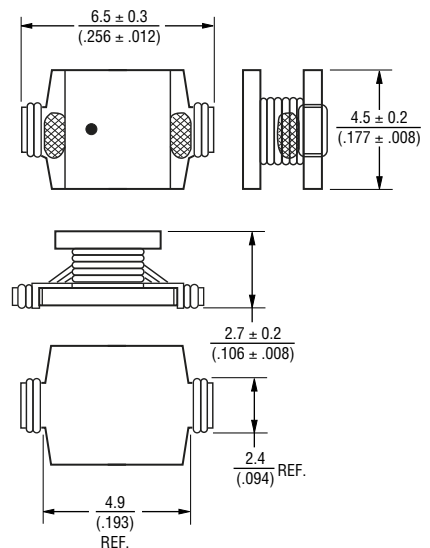
General Specifications

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

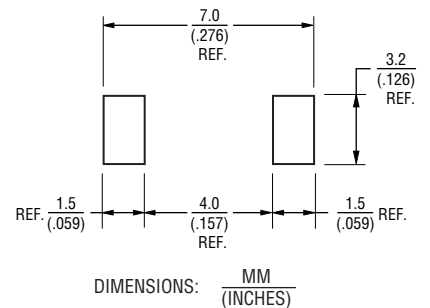
Materials

Core Ferrite
 Wire Enameled copper 130 °C
 Adhesive 6020H-6
 Terminal Sn/Ag/Cu
 Rated Current.. Ind. drop 10 % typ. at Isat
 Temp. Rise..... 20 °C max. at rated Irms
 Packaging 500 pcs. per reel

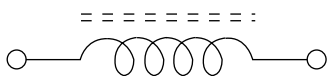
Product Dimensions



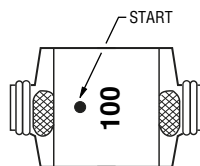
Recommended Layout



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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SDR0703 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



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

QTY: 500 PCS. PER REEL

BOURNS®

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REV. 03/18

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