

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
 - Car radios

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 |

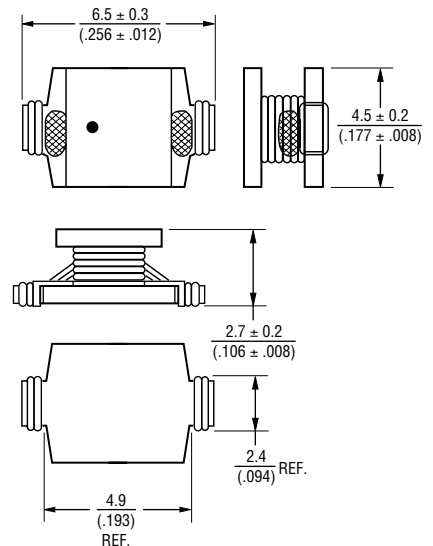
General Specifications

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)..... 3B

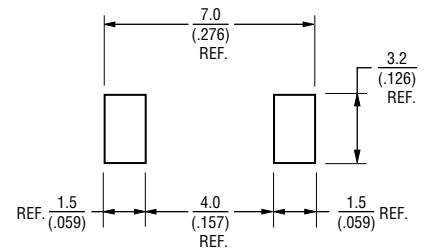
Materials

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

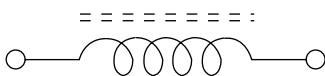


Recommended Layout

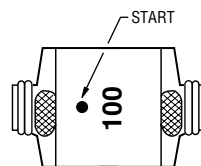


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Electrical Schematic



Typical Part Marking



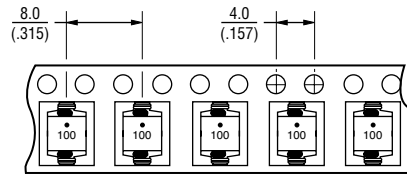
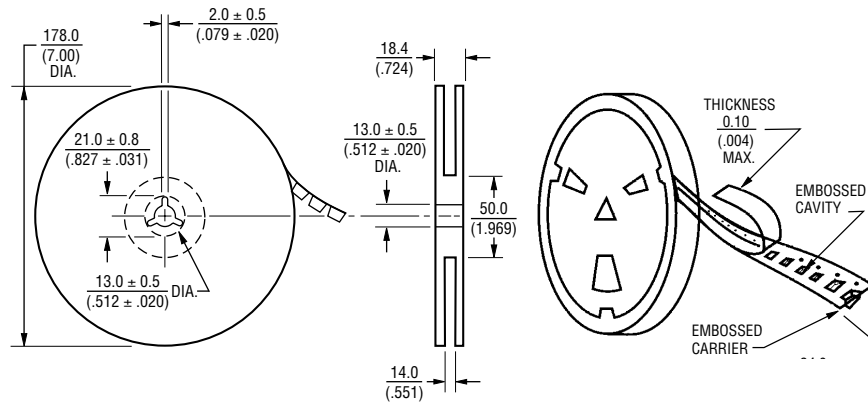
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

SDR0703 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



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

QTY: 500 PCS. PER REEL

REV. 06/17

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