



Features

- Available in E12 series
- Small diameter of only 5.8 mm max.
- Profile of 4.8 mm
- RoHS compliant*

Applications

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

BOURNS®

SDR0604 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. % | | | | | | |
| SDR0604-1R2ML | 1.2 | ± 20 | 35 | 7.96 | 155 | 0.02 | 4.2 | 7.30 |
| SDR0604-1R5ML | 1.5 | ± 20 | 32 | 7.96 | 108 | 0.03 | 3.60 | 6.10 |
| SDR0604-2R2ML | 2.2 | ± 20 | 33 | 7.96 | 79 | 0.06 | 2.80 | 5.10 |
| SDR0604-2R7ML | 2.7 | ± 20 | 22 | 7.96 | 65 | 0.06 | 2.30 | 3.80 |
| SDR0604-3R3ML | 3.3 | ± 20 | 22 | 7.96 | 60 | 0.07 | 2.00 | 3.50 |
| SDR0604-3R9ML | 3.9 | ± 20 | 22 | 7.96 | 40 | 0.07 | 1.90 | 3.20 |
| SDR0604-4R7ML | 4.7 | ± 20 | 20 | 7.96 | 34 | 0.08 | 1.80 | 3.00 |
| SDR0604-5R6ML | 5.6 | ± 20 | 20 | 7.96 | 30 | 0.08 | 1.70 | 2.70 |
| SDR0604-6R8ML | 6.8 | ± 20 | 20 | 7.96 | 28 | 0.12 | 1.60 | 2.50 |
| SDR0604-8R2ML | 8.2 | ± 20 | 20 | 7.96 | 26 | 0.09 | 1.50 | 2.30 |
| SDR0604-100ML | 10 | ± 20 | 30 | 2.52 | 23 | 0.10 | 1.45 | 2.00 |
| SDR0604-120ML | 12 | ± 20 | 30 | 2.52 | 22 | 0.12 | 1.40 | 1.90 |
| SDR0604-150YL | 15 | ± 15 | 30 | 2.52 | 20 | 0.14 | 1.30 | 1.60 |
| SDR0604-180YL | 18 | ± 15 | 30 | 2.52 | 18 | 0.15 | 1.25 | 1.50 |
| SDR0604-220YL | 22 | ± 15 | 30 | 2.52 | 16 | 0.19 | 1.10 | 1.40 |
| SDR0604-270YL | 27 | ± 15 | 28 | 2.52 | 14 | 0.22 | 1.00 | 1.30 |
| SDR0604-330KL | 33 | ± 10 | 24 | 2.52 | 13 | 0.25 | 0.88 | 1.10 |
| SDR0604-390KL | 39 | ± 10 | 24 | 2.52 | 13 | 0.32 | 0.80 | 1.00 |
| SDR0604-470KL | 47 | ± 10 | 22 | 2.52 | 12 | 0.37 | 0.72 | 1.00 |
| SDR0604-560KL | 56 | ± 10 | 22 | 2.52 | 11 | 0.42 | 0.68 | 0.90 |
| SDR0604-680KL | 68 | ± 10 | 22 | 2.52 | 10 | 0.52 | 0.62 | 0.84 |
| SDR0604-820KL | 82 | ± 10 | 20 | 2.52 | 9 | 0.60 | 0.58 | 0.75 |
| SDR0604-101KL | 100 | ± 10 | 20 | 0.796 | 9 | 0.70 | 0.52 | 0.68 |
| SDR0604-121KL | 120 | ± 10 | 22 | 0.796 | 7 | 0.93 | 0.48 | 0.60 |
| SDR0604-151KL | 150 | ± 10 | 20 | 0.796 | 6 | 1.10 | 0.40 | 0.54 |
| SDR0604-181KL | 180 | ± 10 | 20 | 0.796 | 6 | 1.38 | 0.38 | 0.50 |
| SDR0604-221KL | 220 | ± 10 | 20 | 0.796 | 6 | 1.57 | 0.35 | 0.44 |
| SDR0604-271KL | 270 | ± 10 | 26 | 0.796 | 4 | 1.88 | 0.32 | 0.40 |
| SDR0604-331KL | 330 | ± 10 | 25 | 0.796 | 3 | 2.25 | 0.27 | 0.36 |
| SDR0604-391KL | 390 | ± 10 | 25 | 0.796 | 3 | 2.48 | 0.25 | 0.34 |
| SDR0604-471KL | 470 | ± 10 | 25 | 0.796 | 3 | 3.30 | 0.21 | 0.30 |
| SDR0604-561KL | 560 | ± 10 | 24 | 0.252 | 3 | 4.00 | 0.18 | 0.26 |
| SDR0604-681KL | 680 | ± 10 | 26 | 0.252 | 2 | 4.65 | 0.16 | 0.25 |
| SDR0604-821KL | 820 | ± 10 | 25 | 0.252 | 2 | 5.20 | 0.14 | 0.20 |
| SDR0604-102KL | 1000 | ± 10 | 45 | 0.252 | 1.5 | 6.80 | 0.12 | 0.12 |

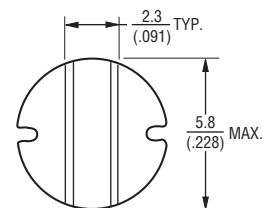
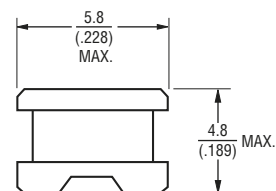
General Specifications

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

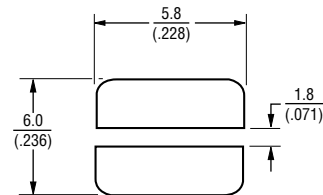
Materials

Core Ferrite DR core
 Wire Enameled copper
 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

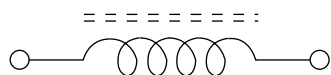


Recommended Layout

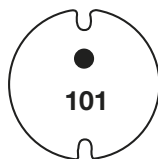


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

Electrical Schematic



Typical Part Marking



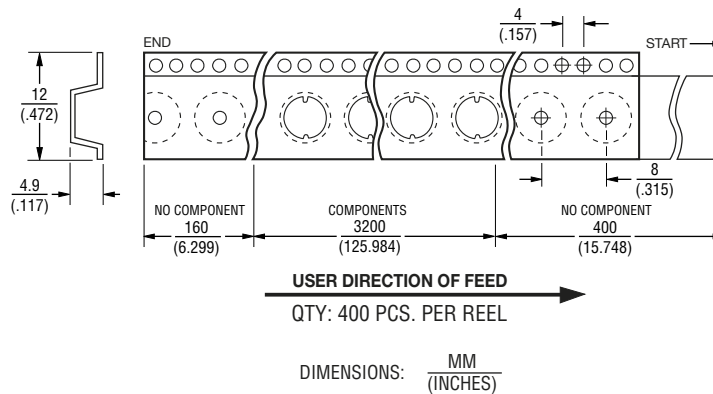
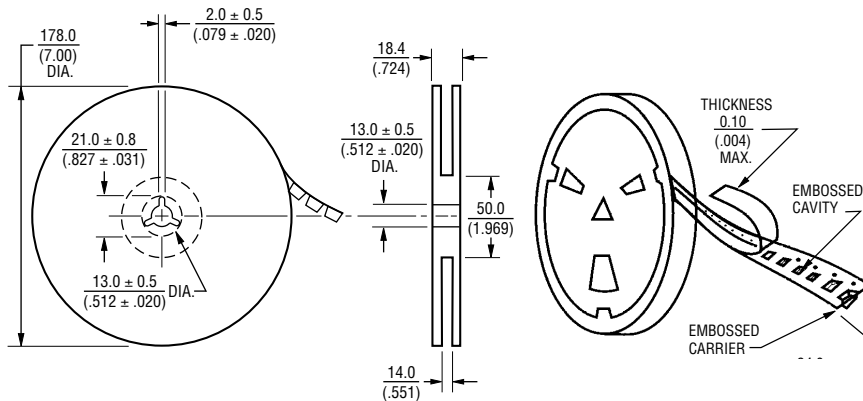
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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SDR0604 Series - SMD Power Inductors

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Packaging Specifications



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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REV. 03/18

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