



**THE DATASHEET OF
SDR0302-470KL**





Features

- Available in E12 series
- Low profile of only 2.5 mm
- Low inductance values
- RoHS compliant*

Applications

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

SDR0302 Series - SMD Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance @100 kHz/0.1 V | | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|------------------------------|--------|-----------|----------------------------|----------------------|--------------------|----------------------|----------------------|
| | (μH) | Tol. % | | | | | | |
| SDR0302-1R0ML | 1.0 | ± 20 | 20 | 7.96 | 125.0 | 0.06 | 2.100 | 2.700 |
| SDR0302-1R2ML | 1.2 | ± 20 | 22 | 7.96 | 100.0 | 0.07 | 2.000 | 2.500 |
| SDR0302-1R4ML | 1.4 | ± 20 | 22 | 7.96 | 95.0 | 0.07 | 1.500 | 2.300 |
| SDR0302-1R5ML | 1.5 | ± 20 | 23 | 7.96 | 95.0 | 0.07 | 1.900 | 2.300 |
| SDR0302-1R8ML | 1.8 | ± 20 | 23 | 7.96 | 85.0 | 0.08 | 1.800 | 2.000 |
| SDR0302-2R2ML | 2.2 | ± 20 | 22 | 7.96 | 75.0 | 0.09 | 1.650 | 1.850 |
| SDR0302-2R7ML | 2.7 | ± 20 | 22 | 7.96 | 72.0 | 0.10 | 1.500 | 1.700 |
| SDR0302-3R3ML | 3.3 | ± 20 | 23 | 7.96 | 68.0 | 0.11 | 1.400 | 1.600 |
| SDR0302-3R9ML | 3.9 | ± 20 | 24 | 7.96 | 50.0 | 0.12 | 1.300 | 1.500 |
| SDR0302-4R7ML | 4.7 | ± 20 | 18 | 7.96 | 45.0 | 0.15 | 1.200 | 1.350 |
| SDR0302-5R6ML | 5.6 | ± 20 | 18 | 7.96 | 42.0 | 0.16 | 1.100 | 1.300 |
| SDR0302-6R8ML | 6.8 | ± 20 | 18 | 7.96 | 40.0 | 0.18 | 1.000 | 1.200 |
| SDR0302-8R2ML | 8.2 | ± 20 | 16 | 7.96 | 35.0 | 0.20 | 0.900 | 1.050 |
| SDR0302-100ML | 10.0 | ± 20 | 18 | 2.52 | 34.0 | 0.25 | 0.800 | 0.900 |
| SDR0302-120ML | 12.0 | ± 20 | 15 | 2.52 | 33.0 | 0.28 | 0.750 | 0.850 |
| SDR0302-150ML | 15.0 | ± 20 | 20 | 2.52 | 32.0 | 0.40 | 0.650 | 0.800 |
| SDR0302-180ML | 18.0 | ± 20 | 18 | 2.52 | 28.0 | 0.46 | 0.580 | 0.750 |
| SDR0302-220ML | 22.0 | ± 20 | 23 | 2.52 | 22.0 | 0.66 | 0.520 | 0.650 |
| SDR0302-270ML | 27.0 | ± 20 | 23 | 2.52 | 20.0 | 0.75 | 0.480 | 0.550 |
| SDR0302-330KL | 33.0 | ± 10 | 20 | 2.52 | 18.0 | 0.85 | 0.420 | 0.500 |
| SDR0302-390KL | 39.0 | ± 10 | 24 | 2.52 | 18.0 | 1.12 | 0.380 | 0.450 |
| SDR0302-470KL | 47.0 | ± 10 | 23 | 2.52 | 17.0 | 1.27 | 0.360 | 0.400 |
| SDR0302-560KL | 56.0 | ± 10 | 18 | 2.52 | 16.0 | 1.45 | 0.340 | 0.350 |
| SDR0302-680KL | 68.0 | ± 10 | 24 | 2.52 | 14.0 | 1.85 | 0.300 | 0.320 |
| SDR0302-820KL | 82.0 | ± 10 | 24 | 2.52 | 12.0 | 2.10 | 0.280 | 0.300 |
| SDR0302-101KL | 100.0 | ± 10 | 40 | 0.796 | 10.0 | 2.85 | 0.260 | 0.280 |
| SDR0302-121KL | 120.0 | ± 10 | 40 | 0.796 | 10.0 | 3.20 | 0.220 | 0.250 |
| SDR0302-151KL | 150.0 | ± 10 | 38 | 0.796 | 9.0 | 4.60 | 0.200 | 0.230 |
| SDR0302-181KL | 180.0 | ± 10 | 45 | 0.796 | 8.5 | 5.00 | 0.185 | 0.210 |
| SDR0302-221KL | 220.0 | ± 10 | 40 | 0.796 | 8.0 | 5.70 | 0.170 | 0.190 |
| SDR0302-271KL | 270.0 | ± 10 | 45 | 0.796 | 7.0 | 8.60 | 0.150 | 0.170 |
| SDR0302-331KL | 330.0 | ± 10 | 40 | 0.796 | 6.0 | 10.00 | 0.130 | 0.150 |
| SDR0302-391KL | 390.0 | ± 10 | 40 | 0.796 | 5.5 | 10.80 | 0.120 | 0.140 |
| SDR0302-471KL | 470.0 | ± 10 | 42 | 0.796 | 5.0 | 14.30 | 0.105 | 0.130 |
| SDR0302-561KL | 560.0 | ± 10 | 43 | 0.796 | 4.8 | 16.00 | 0.095 | 0.120 |
| SDR0302-681KL | 680.0 | ± 10 | 43 | 0.796 | 4.3 | 18.00 | 0.085 | 0.110 |
| SDR0302-821KL | 820.0 | ± 10 | 45 | 0.796 | 4.0 | 22.50 | 0.080 | 0.100 |
| SDR0302-102KL | 1000.0 | ± 10 | 40 | 0.252 | 3.2 | 26.00 | 0.070 | 0.090 |
| SDR0302-122KL | 1200.0 | ± 10 | 40 | 0.252 | 3.0 | 30.00 | 0.060 | 0.080 |

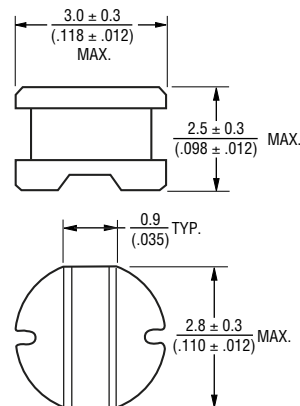
General Specifications

Operating Temperature ... -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature ... -40 °C to +125 °C
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

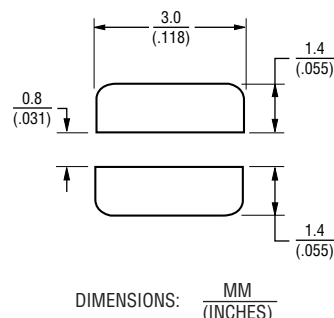
Materials

Core Ferrite DR
 Wire Enameled copper wire 130
 Terminal Ag/Ni/Sn
 Rated Current.. Ind. drop 10 % typ. at Isat
 Temp. Rise 40 °C max. at rated Irms
 Packaging 2000 pcs. per reel

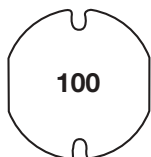
Product Dimensions



Recommended Layout



Typical Part Marking



Electrical Schematic



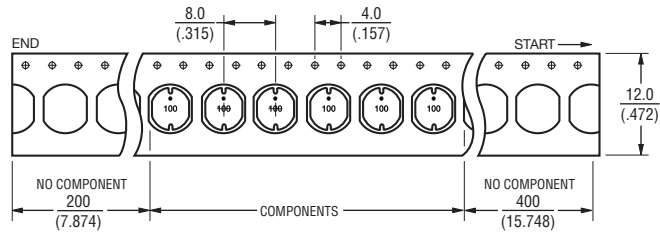
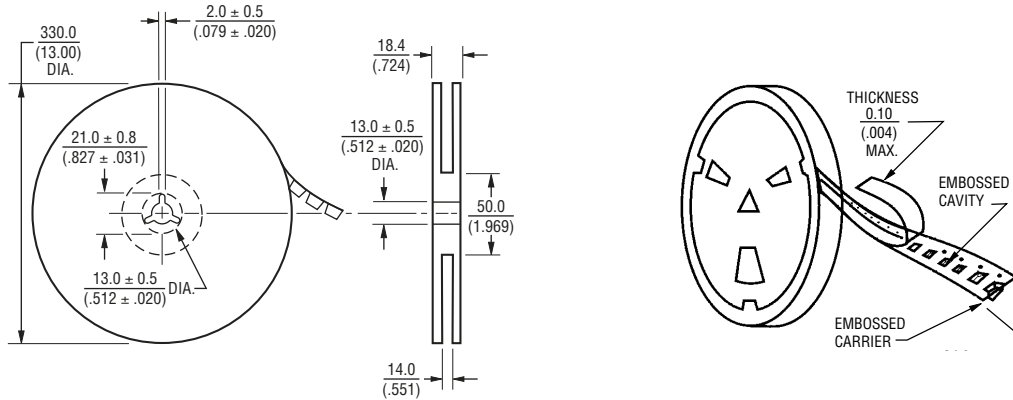
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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SDR0302 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED
QTY: 2000 PCS. PER REEL

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

BOURNS®

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REV. 02/18

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-  Shortage Management
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