



Features

- Available in E12 series
- Small design of only 7.8 mm max. diameter
- RoHS compliant*

Applications

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

SDR0805 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. % | | | | | | |
| SDR0805-1R5ML | 1.5 | ± 20 | 32 | 7.96 | 120 | 0.02 | 6.00 | 9.10 |
| SDR0805-2R5ML | 2.5 | ± 20 | 32 | 7.96 | 70 | 0.02 | 5.00 | 7.20 |
| SDR0805-3R3ML | 3.3 | ± 20 | 32 | 7.96 | 55 | 0.02 | 4.50 | 6.30 |
| SDR0805-3R9ML | 3.9 | ± 20 | 32 | 7.96 | 45 | 0.02 | 4.40 | 5.70 |
| SDR0805-4R7ML | 4.7 | ± 20 | 31 | 7.96 | 38 | 0.03 | 3.70 | 5.00 |
| SDR0805-5R6ML | 5.6 | ± 20 | 31 | 7.96 | 34 | 0.04 | 3.50 | 4.60 |
| SDR0805-6R8ML | 6.8 | ± 20 | 30 | 7.96 | 33 | 0.04 | 3.20 | 4.10 |
| SDR0805-7R5ML | 7.5 | ± 20 | 29 | 7.96 | 30 | 0.05 | 2.80 | 3.70 |
| SDR0805-8R2ML | 8.2 | ± 20 | 29 | 7.96 | 30 | 0.05 | 2.80 | 3.70 |
| SDR0805-100ML | 10 | ± 20 | 25 | 2.52 | 22 | 0.07 | 2.30 | 3.20 |
| SDR0805-120ML | 12 | ± 20 | 25 | 2.52 | 20 | 0.08 | 2.00 | 3.00 |
| SDR0805-150ML | 15 | ± 20 | 25 | 2.52 | 16 | 0.09 | 1.80 | 2.70 |
| SDR0805-180ML | 18 | ± 20 | 20 | 2.52 | 15 | 0.10 | 1.60 | 2.60 |
| SDR0805-220ML | 22 | ± 20 | 20 | 2.52 | 13 | 0.11 | 1.50 | 2.30 |
| SDR0805-270KL | 27 | ± 20 | 20 | 2.52 | 12 | 0.12 | 1.30 | 2.10 |
| SDR0805-330KL | 33 | ± 10 | 15 | 2.52 | 10 | 0.14 | 1.20 | 1.90 |
| SDR0805-390KL | 39 | ± 10 | 15 | 2.52 | 10 | 0.16 | 1.10 | 1.70 |
| SDR0805-470KL | 47 | ± 10 | 15 | 2.52 | 9 | 0.20 | 1.00 | 1.60 |
| SDR0805-560KL | 56 | ± 10 | 15 | 2.52 | 9 | 0.24 | 0.94 | 1.50 |
| SDR0805-680KL | 68 | ± 10 | 15 | 2.52 | 8 | 0.30 | 0.85 | 1.30 |
| SDR0805-820KL | 82 | ± 10 | 12 | 2.52 | 7 | 0.37 | 0.78 | 1.20 |
| SDR0805-101KL | 100 | ± 10 | 12 | 0.796 | 7 | 0.45 | 0.72 | 1.10 |
| SDR0805-121KL | 120 | ± 10 | 12 | 0.796 | 6 | 0.48 | 0.66 | 1.00 |
| SDR0805-151KL | 150 | ± 10 | 12 | 0.796 | 6 | 0.68 | 0.58 | 0.85 |
| SDR0805-181KL | 180 | ± 10 | 12 | 0.796 | 5 | 0.77 | 0.51 | 0.80 |
| SDR0805-221KL | 220 | ± 10 | 12 | 0.796 | 5 | 0.96 | 0.49 | 0.80 |
| SDR0805-271KL | 270 | ± 10 | 12 | 0.796 | 5 | 1.11 | 0.42 | 0.66 |
| SDR0805-331KL | 330 | ± 10 | 12 | 0.796 | 4 | 1.26 | 0.40 | 0.58 |
| SDR0805-391KL | 390 | ± 10 | 12 | 0.796 | 4 | 1.77 | 0.36 | 0.55 |
| SDR0805-471KL | 470 | ± 10 | 12 | 0.796 | 4 | 1.96 | 0.34 | 0.50 |
| SDR0805-561KL | 560 | ± 10 | 30 | 0.796 | 4 | 2.50 | 0.30 | 0.46 |
| SDR0805-681KL | 680 | ± 10 | 29 | 0.796 | 3 | 2.80 | 0.28 | 0.42 |
| SDR0805-821KL | 820 | ± 10 | 28 | 0.796 | 3 | 4.00 | 0.23 | 0.35 |
| SDR0805-102KL | 1000 | ± 10 | 27 | 0.252 | 3 | 4.50 | 0.21 | 0.34 |
| SDR0805-122KL | 1200 | ± 10 | 28 | 0.252 | 2 | 6.80 | 0.17 | 0.28 |
| SDR0805-152KL | 1500 | ± 10 | 27 | 0.252 | 2 | 8.00 | 0.15 | 0.26 |
| SDR0805-182KL | 1800 | ± 10 | 30 | 0.252 | 2 | 9.20 | 0.14 | 0.23 |
| SDR0805-222KL | 2200 | ± 10 | 29 | 0.252 | 2 | 10.00 | 0.13 | 0.20 |
| SDR0805-272KL | 2700 | ± 10 | 31 | 0.252 | 1 | 11.80 | 0.12 | 0.18 |
| SDR0805-332KL | 3300 | ± 10 | 28 | 0.252 | 1 | 16.50 | 0.10 | 0.17 |
| SDR0805-392KL | 3900 | ± 10 | 28 | 0.252 | 1 | 18.00 | 0.09 | 0.16 |
| SDR0805-472KL | 4700 | ± 10 | 30 | 0.252 | 1 | 21.00 | 0.08 | 0.15 |

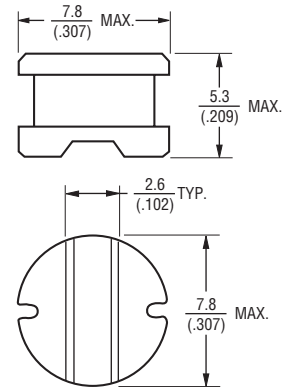
General Specifications

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

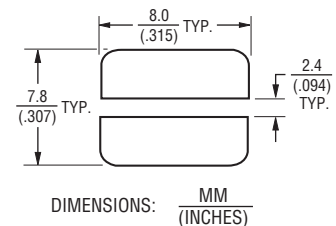
Materials

Core Ferrite DR
 Wire Enameled copper
 Base DAP
 Terminal Ag/Ni/Sn
 Rated Current.. Ind. drop 10 % typ. at Isat
 Temp. Rise 40 °C max. at rated I rms
 Packaging 1000 pcs. per reel

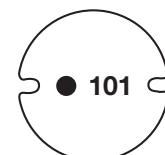
Product Dimensions



Recommended Layout



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.
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 Users should verify actual device performance in their specific applications.

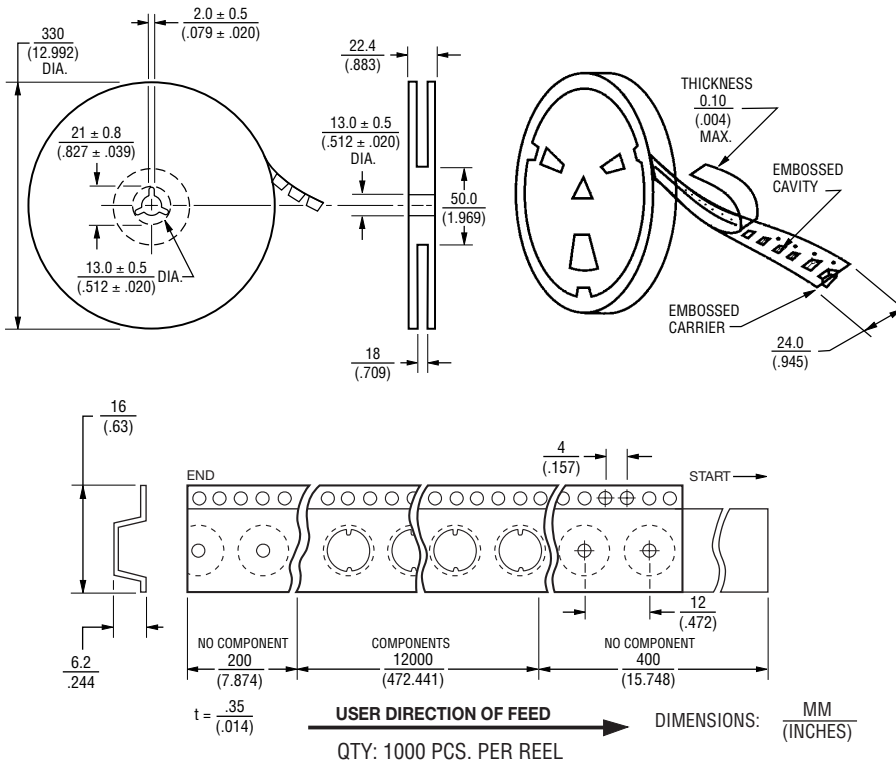
SDR0805 Series - SMD Power Inductors

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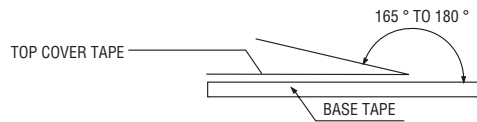
Packaging Specifications

Materials

Paper
Plastics



Strength of Cover Tape



The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

REV. 04/18

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