

# **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**

| Liectrical Specifications |                     |        |           |                    |               |             |             |             |
|---------------------------|---------------------|--------|-----------|--------------------|---------------|-------------|-------------|-------------|
|                           | Inductance<br>1 kHz |        | _         | Test               | SRF           | RDC         | l rms       | I sat       |
| Bourns<br>Part Number     | (μH)                | Tol. % | Q<br>Ref. | Frequency<br>(MHz) | Min.<br>(MHz) | Max.<br>(Ω) | Max.<br>(A) | Typ.<br>(A) |
| 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 (Temperature rise included) Storage Temperature... -40 °C to +125 °Ć

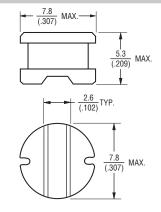
Resistance to Soldering Heat

.....+260 °C for 5 sec. Moisture Sensitivity Level ......1 ESD Classification (HBM).....N/A

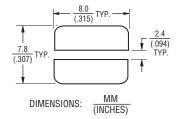
### **Materials**

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 Irms Packaging......1000 pcs. per reel

# **Product Dimensions**



# **Recommended Layout**



# **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. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

# **SDR0805 Series - SMD Power Inductors**

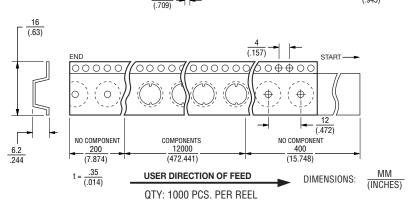
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# **Packaging Specifications**

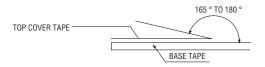
# $\begin{array}{c} 330 \\ (12.992) \\ DIA. \\ \hline \\ (827 \pm 0.08) \\ \hline \\ (13.0 \pm 0.5) \\ \hline$

### Materials

Paper Plastics



# **Strength of Cover Tape**



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

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REV. 04/18

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Users should verify actual device performance in their specific applications.

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