



## Features

- Available in E12 series
- Low height of only 7.0 mm
- Inductance as low as 0.78  $\mu$ H
- High current up to 16 amps
- RoHS compliant\*

## Applications

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

# SDR2207 Series - SMD Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 100 KHz |          | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. ( $m\Omega$ ) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|--------------------|----------|--------|----------------------|----------------|------------------------|----------------|----------------|
|                 | ( $\mu$ H)         | Tol. %   |        |                      |                |                        |                |                |
| SDR2207-R78ML   | 0.78               | $\pm 20$ | 30     | 5                    | 104.0          | 2.6                    | 15.0           | 30.0           |
| SDR2207-R80ML   | 0.8                | $\pm 20$ | 30     | 5                    | 102.0          | 2.8                    | 16.0           | 35.0           |
| SDR2207-1R2ML   | 1.2                | $\pm 20$ | 30     | 3                    | 70.0           | 3.8                    | 15.0           | 30.0           |
| SDR2207-1R5ML   | 1.5                | $\pm 20$ | 30     | 3                    | 60.0           | 5.0                    | 15.0           | 25.0           |
| SDR2207-1R8ML   | 1.8                | $\pm 20$ | 31     | 3                    | 51.0           | 4.5                    | 13.0           | 25.0           |
| SDR2207-2R2ML   | 2.2                | $\pm 20$ | 35     | 3                    | 51.0           | 7.5                    | 13.0           | 20.0           |
| SDR2207-2R7ML   | 2.7                | $\pm 20$ | 38     | 3                    | 51.0           | 7.0                    | 10.0           | 20.0           |
| SDR2207-3R3ML   | 3.3                | $\pm 20$ | 38     | 3                    | 39.0           | 7.8                    | 9.0            | 17.0           |
| SDR2207-3R9ML   | 3.9                | $\pm 20$ | 38     | 3                    | 36.0           | 12.0                   | 9.0            | 15.0           |
| SDR2207-4R7ML   | 4.7                | $\pm 20$ | 38     | 3                    | 33.0           | 8.8                    | 8.5            | 15.0           |
| SDR2207-5R6ML   | 5.6                | $\pm 20$ | 50     | 3                    | 30.0           | 13.4                   | 7.8            | 14.0           |
| SDR2207-6R0ML   | 6.0                | $\pm 20$ | 43     | 3                    | 28.0           | 17.0                   | 7.5            | 12.0           |
| SDR2207-6R8ML   | 6.8                | $\pm 20$ | 38     | 3                    | 27.0           | 14.2                   | 7.5            | 12.0           |
| SDR2207-7R8ML   | 7.8                | $\pm 20$ | 36     | 3                    | 26.0           | 20.0                   | 7.5            | 11.0           |
| SDR2207-8R2ML   | 8.2                | $\pm 20$ | 35     | 3                    | 25.0           | 15.5                   | 7.0            | 11.0           |
| SDR2207-100ML   | 10                 | $\pm 20$ | 53     | 5                    | 20.0           | 17.2                   | 6.5            | 10.0           |
| SDR2207-120YL   | 12                 | $\pm 15$ | 50     | 5                    | 19.0           | 23.6                   | 5.5            | 9.5            |
| SDR2207-150YL   | 15                 | $\pm 15$ | 38     | 5                    | 16.0           | 28.8                   | 5.0            | 9.0            |
| SDR2207-180YL   | 18                 | $\pm 15$ | 46     | 5                    | 15.0           | 33.0                   | 4.6            | 8.0            |
| SDR2207-220YL   | 22                 | $\pm 15$ | 27     | 3                    | 14.0           | 39.4                   | 4.0            | 6.5            |
| SDR2207-270YL   | 27                 | $\pm 15$ | 22     | 3                    | 12.0           | 43.5                   | 3.8            | 6.0            |
| SDR2207-330YL   | 33                 | $\pm 15$ | 27     | 3                    | 11.0           | 58.4                   | 3.4            | 5.5            |
| SDR2207-390KL   | 39                 | $\pm 10$ | 18     | 3                    | 10.0           | 65.0                   | 3.2            | 5.2            |
| SDR2207-470KL   | 47                 | $\pm 10$ | 27     | 3                    | 9.0            | 91.2                   | 2.8            | 5.0            |
| SDR2207-560KL   | 56                 | $\pm 10$ | 25     | 2                    | 8.3            | 96.5                   | 2.6            | 4.5            |
| SDR2207-680KL   | 68                 | $\pm 10$ | 18     | 2                    | 7.9            | 112.0                  | 2.4            | 4.0            |
| SDR2207-820KL   | 82                 | $\pm 10$ | 28     | 2                    | 6.5            | 144.0                  | 2.3            | 3.5            |
| SDR2207-101KL   | 100                | $\pm 10$ | 18     | 2                    | 6.2            | 168.0                  | 2.2            | 3.0            |
| SDR2207-121KL   | 120                | $\pm 10$ | 20     | 2                    | 6.0            | 230.0                  | 1.6            | 3.0            |
| SDR2207-151KL   | 150                | $\pm 10$ | 22     | 2                    | 5.8            | 250.0                  | 1.5            | 2.6            |
| SDR2207-181KL   | 180                | $\pm 10$ | 20     | 2                    | 5.7            | 300.0                  | 1.3            | 2.5            |
| SDR2207-221KL   | 220                | $\pm 10$ | 19     | 2                    | 5.5            | 380.0                  | 1.2            | 2.4            |
| SDR2207-271KL   | 270                | $\pm 10$ | 17     | 2                    | 5.3            | 470.0                  | 1.1            | 2.2            |
| SDR2207-331KL   | 330                | $\pm 10$ | 20     | 1                    | 5.1            | 560.0                  | 1.0            | 1.9            |
| SDR2207-391KL   | 390                | $\pm 10$ | 17     | 1                    | 4.9            | 680.0                  | 0.9            | 1.7            |
| SDR2207-471KL   | 470                | $\pm 10$ | 19     | 1                    | 4.7            | 850.0                  | 0.8            | 1.4            |
| SDR2207-561KL   | 560                | $\pm 10$ | 18     | 1                    | 4.5            | 1000                   | 0.8            | 1.3            |
| SDR2207-681KL   | 680                | $\pm 10$ | 16     | 1                    | 4.2            | 1100                   | 0.7            | 1.2            |
| SDR2207-821KL   | 820                | $\pm 10$ | 16     | 1                    | 3.9            | 1400                   | 0.6            | 1.1            |
| SDR2207-102KL   | 1000               | $\pm 10$ | 15     | 1                    | 3.5            | 1800                   | 0.6            | 1.0            |

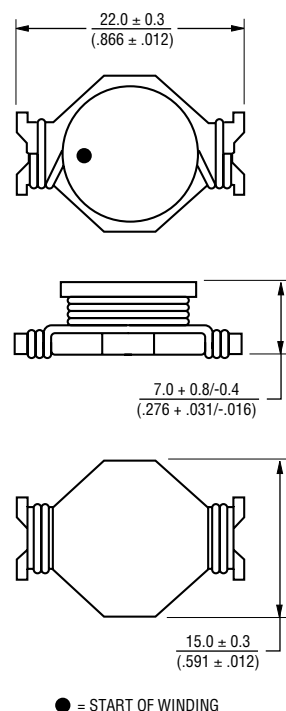
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow soldering ..... 250 °C; 10 sec max.  
 (In compliance with JEDEC, J-STD-020C, Table 4-2)  
 Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature ..... -40 °C to +125 °C  
 Resistance to Soldering Heat ..... 250 °C, 10 sec. max.

## Materials

Core ..... Ferrite DR  
 Wire ..... Enameled copper  
 Terminal ..... Cu/Ag/Sn  
 Base ..... Phenolic T375J  
 Adhesive ..... Epoxy resin  
 Rated Current ..... Ind. drop 10 % typ. at Isat  
 Temperature Rise ..... 40 °C max. at rated I rms  
 Packaging ..... 250 pcs. per reel

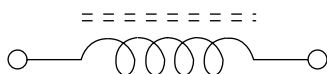
## Product Dimensions



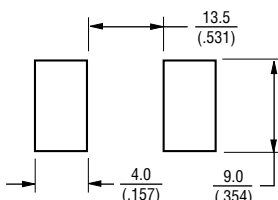
● = START OF WINDING

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

## Electrical Schematic



## Recommended Layout



\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

