



## Features

- Available in E12 series
- Small design of only 7.8 mm maximum diameter
- RoHS compliant\*

## Applications

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

## SDR0805 Series - SMD Power Inductors

### Electrical Specifications

| Bourns Part No. | Inductance 1kHz |        | Q<br>Ref. | Test<br>Frequency<br>(MHz) | SRF<br>Min.<br>(MHz) | RDC<br>(Ω) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(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                 |
| SDR0805-100ML   | 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                 |

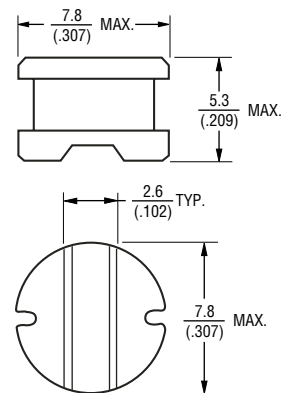
### General Specifications

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.

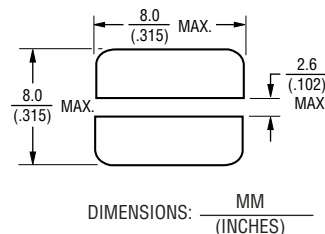
### Materials

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

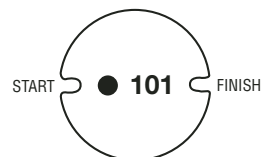
### Product Dimensions



### Recommended Layout



### Typical Part Marking



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

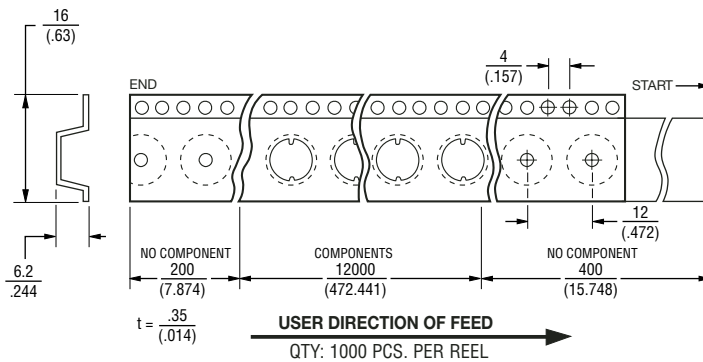
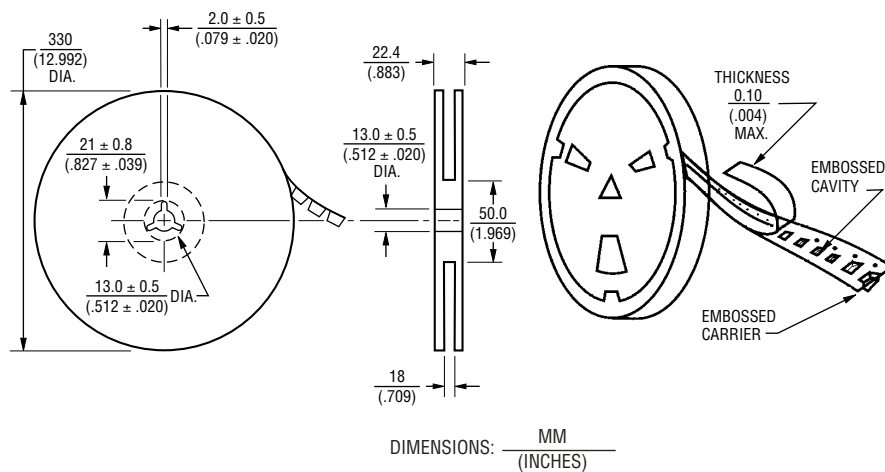
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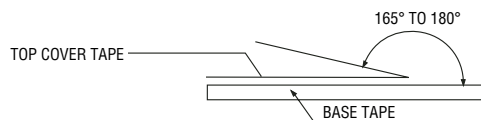
### Packaging Specifications

### Materials

Paper  
Plastics



### Strength Of Cover Tape



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