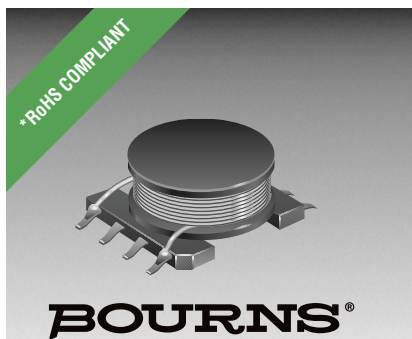




## Features

- High inductance up to 1.2 mH
- E12 series available
- Wide inductance range
- RoHS compliant\*

## Applications

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

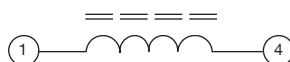
## SDR0906 Series - SMD Power Inductors

### Electrical Specifications

| Bourns<br>Part Number | Inductance<br>1 kHz |        | Q<br>Ref. | Test<br>Frequency<br>(MHz) | SRF<br>Min.<br>(MHz) | RDC<br>Max.<br>(Ω) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(A) |
|-----------------------|---------------------|--------|-----------|----------------------------|----------------------|--------------------|----------------------|----------------------|
|                       | (μH)                | Tol. % |           |                            |                      |                    |                      |                      |
| SDR0906-2R2ML         | 2.2                 | ± 20   | 30        | 7.96                       | 105                  | 0.03               | 4.00                 | 6.70                 |
| SDR0906-2R7ML         | 2.7                 | ± 20   | 30        | 7.96                       | 84                   | 0.04               | 3.50                 | 6.50                 |
| SDR0906-3R9ML         | 3.9                 | ± 20   | 28        | 7.96                       | 77                   | 0.04               | 3.30                 | 5.50                 |
| SDR0906-4R7ML         | 4.7                 | ± 20   | 27        | 7.96                       | 55                   | 0.05               | 3.00                 | 4.80                 |
| SDR0906-5R6ML         | 5.6                 | ± 20   | 28        | 7.96                       | 42                   | 0.06               | 2.80                 | 4.50                 |
| SDR0906-6R8ML         | 6.8                 | ± 20   | 27        | 7.96                       | 36                   | 0.06               | 2.60                 | 4.50                 |
| SDR0906-8R2ML         | 8.2                 | ± 20   | 27        | 7.96                       | 29                   | 0.07               | 2.40                 | 4.00                 |
| SDR0906-100ML         | 10                  | ± 20   | 35        | 2.52                       | 25                   | 0.09               | 2.10                 | 3.20                 |
| SDR0906-120ML         | 12                  | ± 20   | 35        | 2.52                       | 23                   | 0.10               | 2.00                 | 3.10                 |
| SDR0906-150ML         | 15                  | ± 20   | 35        | 2.52                       | 22                   | 0.11               | 1.90                 | 2.90                 |
| SDR0906-180ML         | 18                  | ± 20   | 35        | 2.52                       | 19                   | 0.12               | 1.80                 | 2.40                 |
| SDR0906-220ML         | 22                  | ± 20   | 35        | 2.52                       | 16                   | 0.13               | 1.60                 | 2.40                 |
| SDR0906-270KL         | 27                  | ± 10   | 35        | 2.52                       | 15                   | 0.15               | 1.40                 | 2.20                 |
| SDR0906-330KL         | 33                  | ± 10   | 35        | 2.52                       | 14                   | 0.18               | 1.25                 | 2.00                 |
| SDR0906-390KL         | 39                  | ± 10   | 25        | 2.52                       | 13                   | 0.19               | 1.15                 | 1.60                 |
| SDR0906-470KL         | 47                  | ± 10   | 25        | 2.52                       | 12                   | 0.23               | 1.10                 | 1.50                 |
| SDR0906-560KL         | 56                  | ± 10   | 25        | 2.52                       | 12                   | 0.26               | 1.05                 | 1.40                 |
| SDR0906-680KL         | 68                  | ± 10   | 20        | 2.52                       | 10                   | 0.31               | 1.00                 | 1.40                 |
| SDR0906-820KL         | 82                  | ± 10   | 20        | 2.52                       | 9                    | 0.33               | 0.95                 | 1.30                 |
| SDR0906-101KL         | 100                 | ± 10   | 15        | 0.796                      | 8                    | 0.39               | 0.90                 | 1.10                 |
| SDR0906-121KL         | 120                 | ± 10   | 15        | 0.796                      | 8                    | 0.43               | 0.85                 | 1.10                 |
| SDR0906-151KL         | 150                 | ± 10   | 15        | 0.796                      | 7                    | 0.56               | 0.75                 | 0.90                 |
| SDR0906-181KL         | 180                 | ± 10   | 15        | 0.796                      | 6                    | 0.64               | 0.70                 | 0.82                 |
| SDR0906-221KL         | 220                 | ± 10   | 20        | 0.796                      | 6                    | 0.85               | 0.60                 | 0.80                 |
| SDR0906-271KL         | 270                 | ± 10   | 20        | 0.796                      | 5                    | 1.00               | 0.55                 | 0.76                 |
| SDR0906-331KL         | 330                 | ± 10   | 15        | 0.796                      | 5                    | 1.27               | 0.50                 | 0.65                 |
| SDR0906-391KL         | 390                 | ± 10   | 15        | 0.796                      | 5                    | 1.40               | 0.45                 | 0.64                 |
| SDR0906-471KL         | 470                 | ± 10   | 15        | 0.796                      | 5                    | 1.63               | 0.40                 | 0.57                 |
| SDR0906-561KL         | 560                 | ± 10   | 15        | 0.796                      | 4                    | 2.10               | 0.32                 | 0.53                 |
| SDR0906-681KL         | 680                 | ± 10   | 15        | 0.796                      | 4                    | 2.40               | 0.28                 | 0.46                 |
| SDR0906-821KL         | 820                 | ± 10   | 15        | 0.796                      | 3                    | 2.75               | 0.24                 | 0.36                 |
| SDR0906-102KL         | 1000                | ± 10   | 60        | 0.252                      | 2                    | 3.50               | 0.22                 | 0.35                 |
| SDR0906-122KL         | 1200                | ± 10   | 60        | 0.252                      | 2                    | 4.00               | 0.20                 | 0.28                 |
| SDR0906-152KL         | 1500                | ± 10   | 70        | 0.252                      | 2                    | 5.00               | 0.18                 | 0.26                 |
| SDR0906-182KL         | 1800                | ± 10   | 60        | 0.252                      | 2                    | 5.80               | 0.17                 | 0.24                 |
| SDR0906-222KL         | 2200                | ± 10   | 94        | 0.252                      | 2                    | 8.00               | 0.14                 | 0.23                 |
| SDR0906-272KL         | 2700                | ± 10   | 90        | 0.252                      | 1                    | 9.00               | 0.13                 | 0.23                 |
| SDR0906-332KL         | 3300                | ± 10   | 78        | 0.252                      | 1                    | 10.00              | 0.12                 | 0.18                 |
| SDR0906-392KL         | 3900                | ± 10   | 96        | 0.252                      | 1                    | 13.50              | 0.10                 | 0.18                 |
| SDR0906-472KL         | 4700                | ± 10   | 86        | 0.252                      | 1                    | 15.00              | 0.09                 | 0.16                 |
| SDR0906-562KL         | 5600                | ± 10   | 100       | 0.252                      | 1                    | 20.00              | 0.07                 | 0.15                 |
| SDR0906-682KL         | 6800                | ± 10   | 90        | 0.252                      | 1                    | 23.00              | 0.06                 | 0.14                 |
| SDR0906-822KL         | 8200                | ± 10   | 100       | 0.252                      | 1                    | 28.00              | 0.05                 | 0.12                 |
| SDR0906-103KL         | 10000               | ± 10   | 100       | 0.0796                     | 1                    | 33.00              | 0.04                 | 0.10                 |

Multiple windings possible  
(up to four windings).

### Electrical Schematic



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

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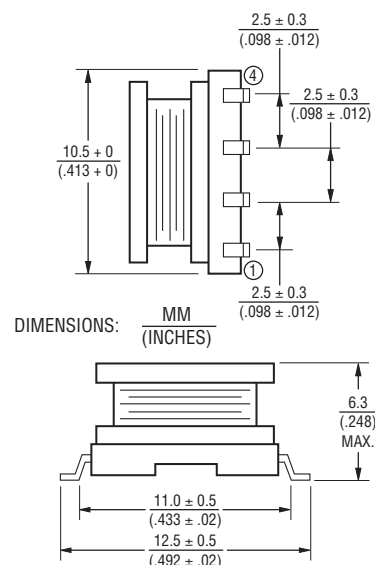
### General Specifications

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

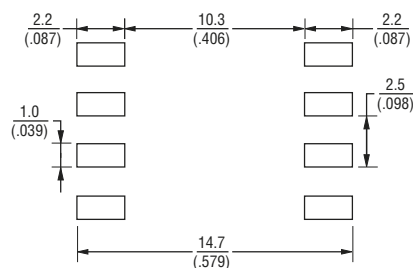
### Materials

Core..... Ferrite DR core  
 Wire ..... Enameled copper wire  
 Base ..... LCP  
 Adhesive..... Epoxy resin  
 Terminal ..... Cu/Sn  
 Rated Current  
 ..... Ind. drop 10 % typ. at Isat  
 Temperature Rise  
 ..... 40 °C max. at rated I rms  
 Packaging..... 600 pcs. per reel

### Product Dimensions



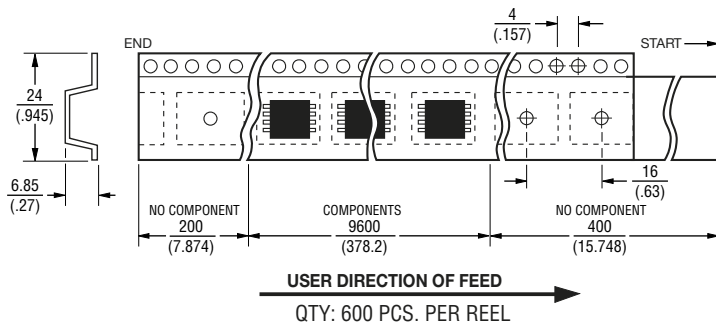
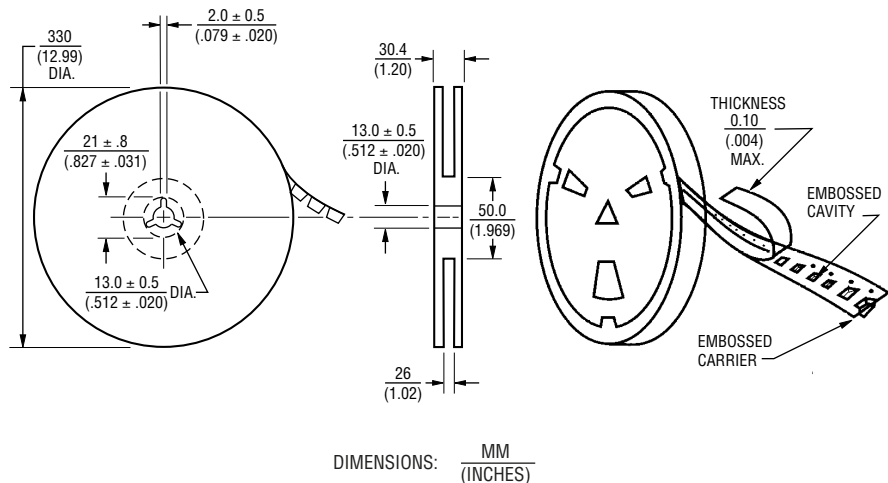
### Recommended Layout



## SDR0906 Series - SMD Power Inductors

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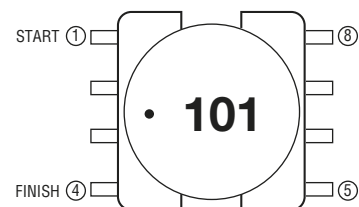
### Packaging Specifications



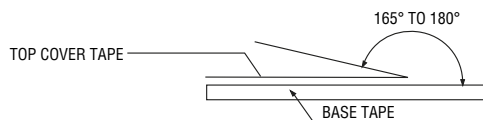
### Materials

Paper  
Plastics

### Typical Part Marking



### Strength of Cover Tape



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

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