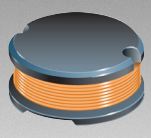


\*RoHS COMPLIANT



**BOURNS®**

### Features

- Available in E12 series
- Low profile of only 3.2 mm
- Low inductance values
- RoHS compliant\*

### Applications

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

## SDR0403 Series - SMD Power Inductors

### Electrical Specifications

| Bourns Part No. | Inductance 1kHz |        | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|-----------------|--------|--------|----------------------|----------------|--------------|----------------|----------------|
|                 | (μH)            | Tol. % |        |                      |                |              |                |                |
| SDR0403-1R0ML   | 1.0             | ± 20   | 28     | 7.96                 | 150            | 0.033        | 3.80           | 5.50           |
| SDR0403-1R4ML   | 1.4             | ± 20   | 28     | 7.96                 | 110            | 0.038        | 3.30           | 5.10           |
| SDR0403-1R8ML   | 1.8             | ± 20   | 28     | 7.96                 | 90             | 0.042        | 2.91           | 4.40           |
| SDR0403-2R2ML   | 2.2             | ± 20   | 28     | 7.96                 | 80             | 0.047        | 2.60           | 3.90           |
| SDR0403-2R7ML   | 2.7             | ± 20   | 28     | 7.96                 | 75             | 0.052        | 2.43           | 3.50           |
| SDR0403-3R3ML   | 3.3             | ± 20   | 28     | 7.96                 | 65             | 0.058        | 2.15           | 3.00           |
| SDR0403-3R9ML   | 3.9             | ± 20   | 28     | 7.96                 | 55             | 0.076        | 1.98           | 2.70           |
| SDR0403-4R7ML   | 4.7             | ± 20   | 28     | 7.96                 | 50             | 0.094        | 1.70           | 2.60           |
| SDR0403-5R6ML   | 5.6             | ± 20   | 28     | 7.96                 | 45             | 0.10         | 1.60           | 2.40           |
| SDR0403-6R8ML   | 6.8             | ± 20   | 28     | 7.96                 | 40             | 0.12         | 1.41           | 2.10           |
| SDR0403-8R2ML   | 8.2             | ± 20   | 28     | 7.96                 | 36             | 0.13         | 1.26           | 1.90           |
| SDR0403-100ML   | 10              | ± 20   | 28     | 2.52                 | 33             | 0.18         | 1.15           | 1.70           |
| SDR0403-120ML   | 12              | ± 20   | 28     | 2.52                 | 30             | 0.21         | 1.05           | 1.60           |
| SDR0403-150ML   | 15              | ± 20   | 28     | 2.52                 | 28             | 0.24         | 0.92           | 1.40           |
| SDR0403-180ML   | 18              | ± 20   | 25     | 2.52                 | 23             | 0.34         | 0.84           | 1.30           |
| SDR0403-220ML   | 22              | ± 20   | 25     | 2.52                 | 20             | 0.38         | 0.76           | 1.20           |
| SDR0403-270KL   | 27              | ± 10   | 23     | 2.52                 | 17             | 0.52         | 0.71           | 1.00           |
| SDR0403-330KL   | 33              | ± 10   | 23     | 2.52                 | 15             | 0.54         | 0.64           | 0.99           |
| SDR0403-390KL   | 39              | ± 10   | 20     | 2.52                 | 14             | 0.59         | 0.59           | 0.92           |
| SDR0403-470KL   | 47              | ± 10   | 20     | 2.52                 | 13             | 0.84         | 0.54           | 0.78           |
| SDR0403-560KL   | 56              | ± 10   | 20     | 2.52                 | 12             | 0.94         | 0.50           | 0.74           |
| SDR0403-680KL   | 68              | ± 10   | 20     | 2.52                 | 11             | 1.12         | 0.46           | 0.68           |
| SDR0403-820KL   | 82              | ± 10   | 25     | 2.52                 | 10             | 1.27         | 0.42           | 0.58           |
| SDR0403-101KL   | 100             | ± 10   | 35     | 0.796                | 9              | 1.90         | 0.35           | 0.51           |
| SDR0403-121KL   | 120             | ± 10   | 50     | 0.796                | 8              | 2.20         | 0.32           | 0.44           |
| SDR0403-151KL   | 150             | ± 10   | 50     | 0.796                | 8              | 3.40         | 0.26           | 0.40           |
| SDR0403-181KL   | 180             | ± 10   | 50     | 0.796                | 5              | 3.90         | 0.24           | 0.39           |
| SDR0403-221KL   | 220             | ± 10   | 50     | 0.796                | 4              | 4.40         | 0.22           | 0.33           |
| SDR0403-271KL   | 270             | ± 10   | 45     | 0.796                | 3              | 5.00         | 0.20           | 0.30           |
| SDR0403-331KL   | 330             | ± 10   | 40     | 0.796                | 4              | 6.00         | 0.17           | 0.25           |
| SDR0403-391KL   | 390             | ± 10   | 40     | 0.796                | 3.5            | 6.40         | 0.15           | 0.22           |
| SDR0403-471KL   | 470             | ± 10   | 50     | 0.796                | 3              | 7.00         | 0.13           | 0.19           |
| SDR0403-561KL   | 560             | ± 10   | 50     | 0.796                | 2.8            | 7.80         | 0.12           | 0.18           |
| SDR0403-681KL   | 680             | ± 10   | 40     | 0.796                | 2.8            | 8.60         | 0.11           | 0.16           |
| SDR0403-821KL   | 820             | ± 10   | 38     | 0.796                | 2.5            | 12.00        | 0.10           | 0.15           |
| SDR0403-102KL   | 1000            | ± 10   | 38     | 0.252                | 2              | 14.00        | 0.09           | 0.13           |

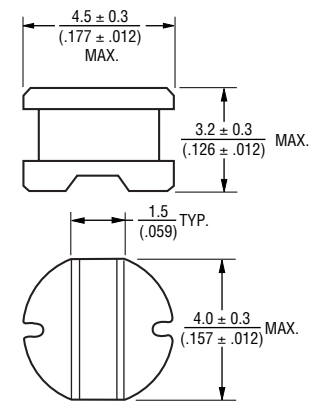
### General Specifications

Test Voltage ..... 1 V  
 Operating Temperature ... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature... -55 °C to +125 °C

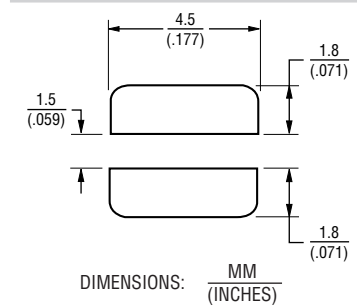
### Materials

Core ..... Ferrite DR  
 Wire ..... Enameled copper  
 Terminal ..... Ag/Ni/Sn  
 Rated Current... Ind. drop 10 % typ. at Isat  
 Temp. Rise..... 40 °C max. at rated Irms  
 Packaging..... 2000 pcs. per reel

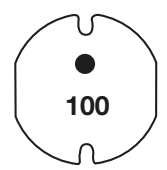
### Product Dimensions



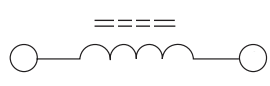
### Recommended Layout



### Typical Part Marking



### Electrical Schematic

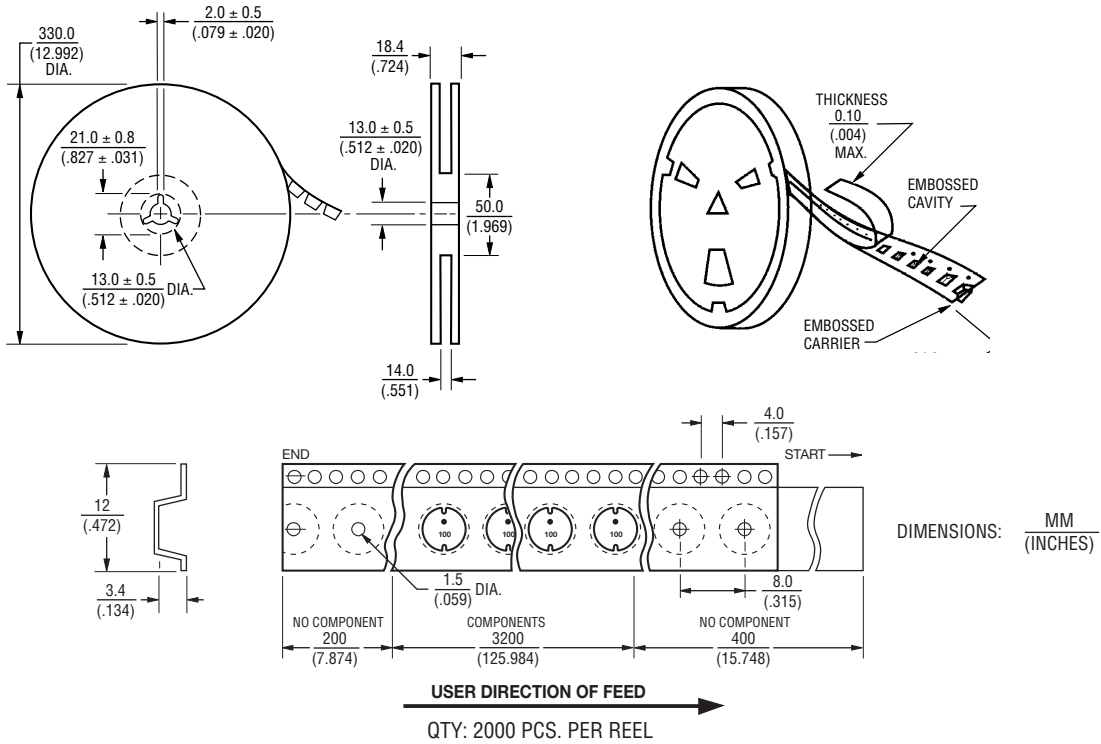


\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
 Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.

# SDR0403 Series - SMD Power Inductors

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## Packaging Specifications



REV. 01/18

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