



## Features

- Available in E6 series
- Low unit height of 4.8 mm
- High current
- RoHS compliant\*

## Applications

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

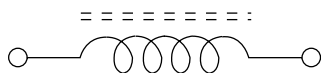
## SRR0604 Series - Shielded Power Inductors

### Electrical Specifications

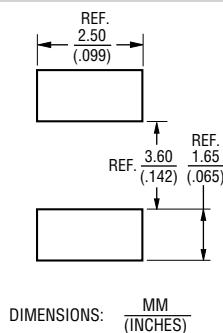
| Bourns Part No. | Inductance<br>1 KHz |        | Q<br>Ref. | Test<br>Frequency<br>(MHz) | SRF<br>Min.<br>(MHz) | RDC<br>Max.<br>(Ω) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(A) | **K-<br>Factor |
|-----------------|---------------------|--------|-----------|----------------------------|----------------------|--------------------|----------------------|----------------------|----------------|
|                 | μH                  | Tol. % |           |                            |                      |                    |                      |                      |                |
| SRR0604-1R5ML   | 1.5                 | ±20    | 23        | 7.96                       | 110.0                | 0.028              | 2.80                 | 3.95                 | 351            |
| SRR0604-2R2ML   | 2.2                 | ±20    | 21        | 7.96                       | 100.0                | 0.032              | 2.50                 | 3.50                 | 310            |
| SRR0604-2R5ML   | 2.5                 | ±20    | 21        | 7.96                       | 100.0                | 0.035              | 2.50                 | 3.50                 | 277            |
| SRR0604-3R3ML   | 3.3                 | ±20    | 21        | 7.96                       | 90.0                 | 0.050              | 2.30                 | 2.90                 | 251            |
| SRR0604-4R7ML   | 4.7                 | ±20    | 10        | 7.96                       | 50.0                 | 0.060              | 2.00                 | 2.55                 | 210            |
| SRR0604-6R8ML   | 6.8                 | ±20    | 20        | 7.96                       | 37.0                 | 0.070              | 1.60                 | 2.05                 | 170            |
| SRR0604-100ML   | 10                  | ±20    | 18        | 2.52                       | 30.0                 | 0.12               | 1.30                 | 1.80                 | 142            |
| SRR0604-150ML   | 15                  | ±20    | 18        | 2.52                       | 30.0                 | 0.13               | 1.10                 | 1.45                 | 117            |
| SRR0604-220ML   | 22                  | ±20    | 16        | 2.52                       | 25.0                 | 0.19               | 0.90                 | 1.20                 | 96             |
| SRR0604-330KL   | 33                  | ±10    | 16        | 2.52                       | 21.0                 | 0.25               | 0.70                 | 0.95                 | 79             |
| SRR0604-470KL   | 47                  | ±10    | 15        | 2.52                       | 18.0                 | 0.36               | 0.60                 | 0.80                 | 65             |
| SRR0604-680KL   | 68                  | ±10    | 15        | 2.52                       | 15.0                 | 0.52               | 0.50                 | 0.68                 | 54             |
| SRR0604-101KL   | 100                 | ±10    | 23        | 0.796                      | 13.0                 | 0.65               | 0.40                 | 0.57                 | 45             |
| SRR0604-151KL   | 150                 | ±10    | 21        | 0.796                      | 12.0                 | 1.00               | 0.30                 | 0.47                 | 37             |
| SRR0604-221KL   | 220                 | ±10    | 20        | 0.796                      | 10.0                 | 1.70               | 0.25                 | 0.32                 | 30             |
| SRR0604-331KL   | 330                 | ±10    | 18        | 0.796                      | 7.0                  | 2.10               | 0.20                 | 0.28                 | 25             |
| SRR0604-471KL   | 470                 | ±10    | 18        | 0.796                      | 6.5                  | 3.30               | 0.18                 | 0.22                 | 21             |
| SRR0604-681KL   | 680                 | ±10    | 16        | 0.796                      | 6.0                  | 4.80               | 0.15                 | 0.19                 | 17             |
| SRR0604-102KL   | 1000                | ±10    | 15        | 0.252                      | 5.5                  | 6.10               | 0.12                 | 0.15                 | 14             |
| SRR0604-222KL   | 2200                | ±10    | 80        | 0.252                      | 0.65                 | 16.0               | 0.10                 | 0.08                 | 9              |

\*\*K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(μH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

### Schematic



### Recommended Layout



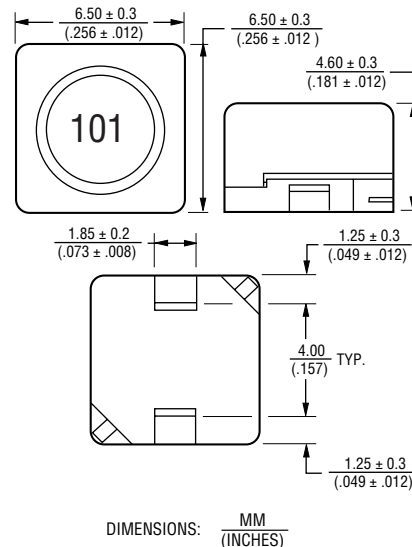
### General Specifications

Test Voltage..... 1 Volt  
 Operating Temperature..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +125 °C  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

### Materials

Core..... Ferrite DR & RI  
 Wire..... Enameled copper  
 Base..... LCP E4008  
 Terminal..... Cu/Ni/Sn  
 Rated Current.....  
 Ind. drop of 10 % typ. at Isat  
 Temperature Rise..... 40 °C max. at rated Irms  
 Packaging..... 1000 pcs. per reel

### Product Dimensions



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

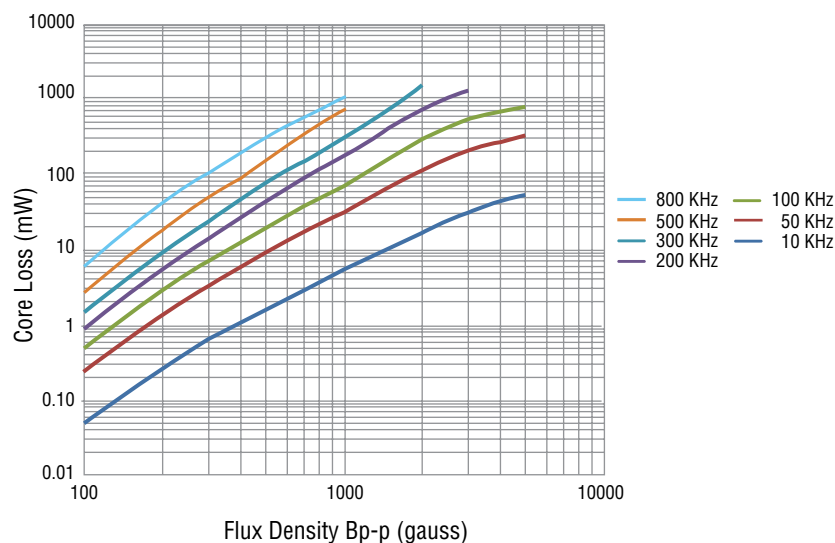
Users should verify actual device performance in their specific applications.

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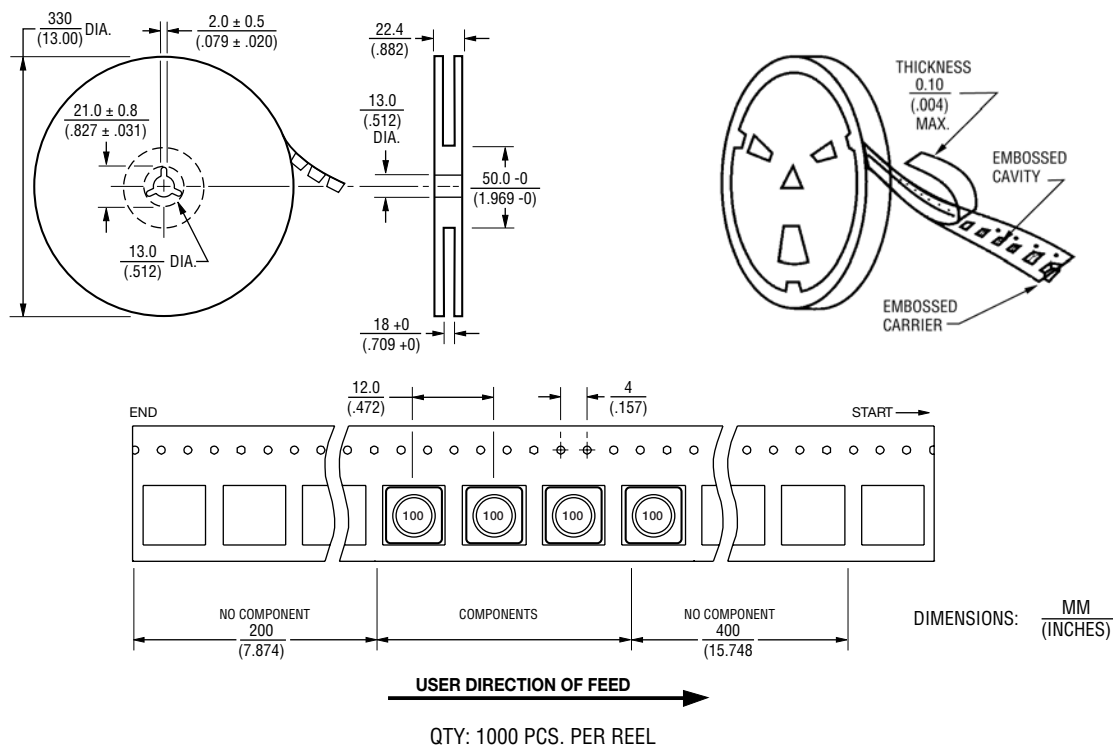
# SRR0604 Series - Shielded Power Inductors

**BOURNS®**

## Core Loss vs. Flux Density



## Packaging Specifications



REV. 04/19

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Users should verify actual device performance in their specific applications.

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Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)