



**THE DATASHEET OF  
SRR0604-681KL**





## 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

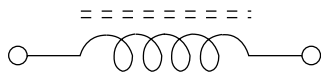
# SRR0604 Series - Shielded Power Inductors

### Electrical Specifications

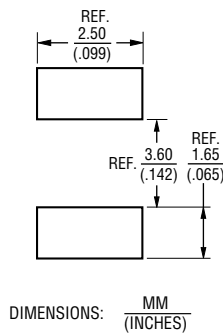
Bourns Part No.	Inductance 1 KHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)	**K- Factor
	μH	Tol. %							
SRR0604-1R5ML	1.5	±20	23	7.96	110.0	0.028	2.80	3.95	351
SRR0604-2R2ML	2.2	±20	21	7.96	100.0	0.032	2.50	3.50	310
SRR0604-2R5ML	2.5	±20	21	7.96	100.0	0.035	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



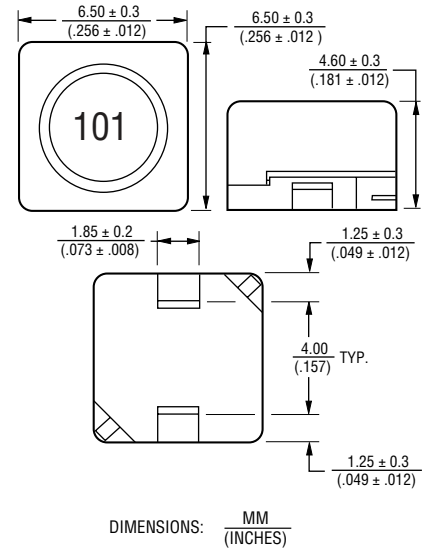
### General Specifications

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 I rms  
 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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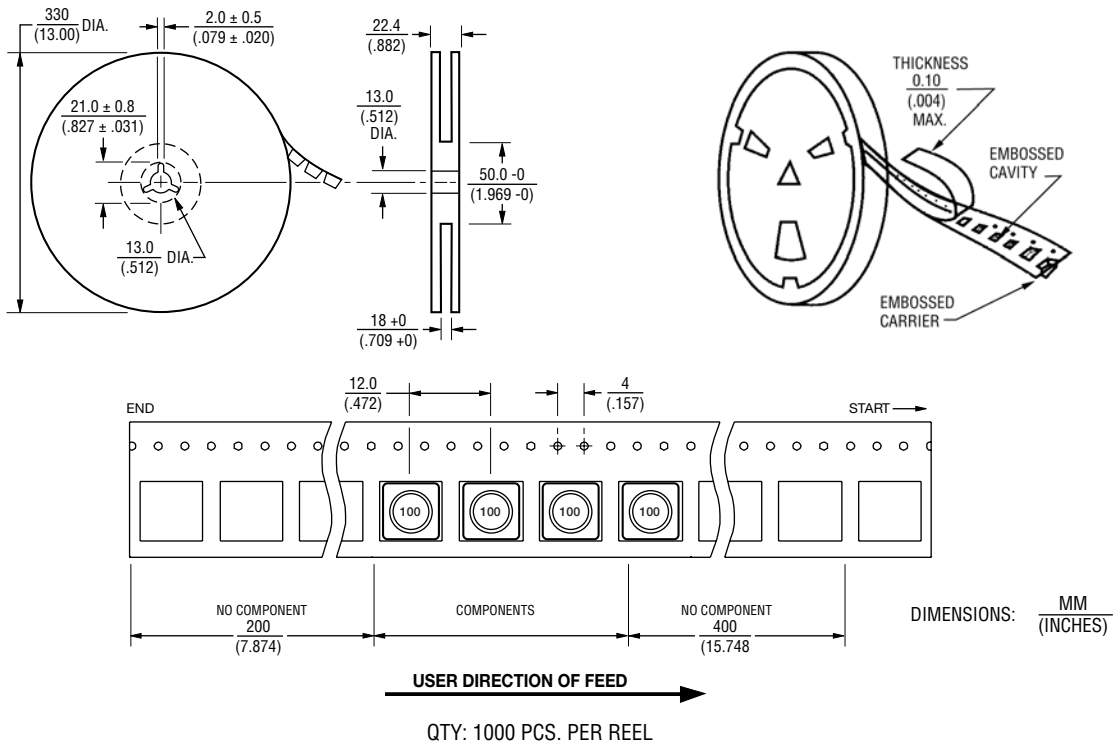
# SRR0604 Series - Shielded Power Inductors

**BOURNS®**

## Core Loss vs. Flux Density



## Packaging Specifications



REV. 04/19

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