



**THE DATASHEET OF  
SRR0603-6R8ML**





### Features

- Available in E6 series
- Low unit height of 3.3 mm
- High current
- RoHS compliant\*

### Applications

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

## SRR0603 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. %							
SRR0603-1R5ML	1.5	± 20	20	7.96	95.0	0.032	2.20	3.50	424
SRR0603-2R5ML	2.5	± 20	19	7.96	90.0	0.040	2.00	2.95	335
SRR0603-3R3ML	3.3	± 20	16	7.96	85.0	0.055	1.80	2.60	303
SRR0603-4R7ML	4.7	± 20	13	7.96	45.0	0.070	1.60	2.20	255
SRR0603-6R8ML	6.8	± 20	13	7.96	32.0	0.100	1.20	1.75	205
SRR0603-100ML	10	± 20	16	2.52	25.0	0.12	1.10	1.50	172
SRR0603-150ML	15	± 20	16	2.52	25.0	0.18	0.90	1.20	135
SRR0603-220ML	22	± 20	16	2.52	20.0	0.27	0.70	1.05	112
SRR0603-330KL	33	± 10	15	2.52	16.0	0.43	0.60	0.83	92
SRR0603-470KL	47	± 10	13	2.52	13.0	0.55	0.50	0.73	77
SRR0603-680KL	68	± 10	11	2.52	10.0	0.90	0.40	0.53	64
SRR0603-101KL	100	± 10	22	0.796	9.0	1.50	0.30	0.44	53
SRR0603-151KL	150	± 10	22	0.796	8.0	1.90	0.25	0.39	43
SRR0603-221KL	220	± 10	20	0.796	5.0	2.70	0.20	0.31	36
SRR0603-331KL	330	± 10	18	0.796	4.5	4.20	0.18	0.24	30
SRR0603-471KL	470	± 10	17	0.796	4.0	6.70	0.15	0.19	25
SRR0603-681KL	680	± 10	13	0.796	3.5	10.50	0.12	0.15	20
SRR0603-102KL	1000	± 10	20	0.252	3.0	14.00	0.10	0.13	17

\*\*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.

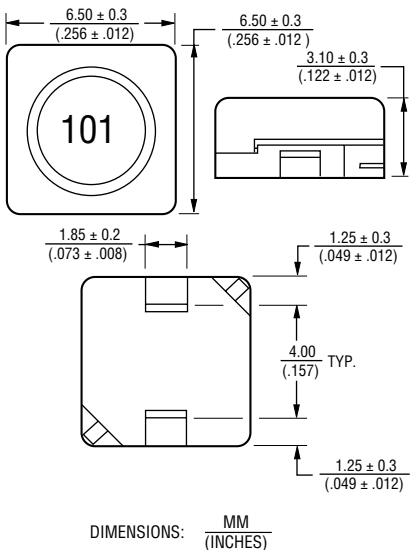
### General Specifications

Test Voltage ..... 1 Volt  
 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

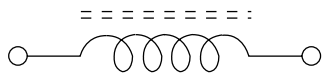
### Materials

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

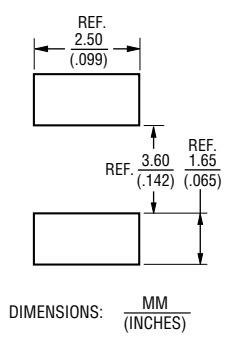
### Product Dimensions



### Schematic



### Recommended Layout



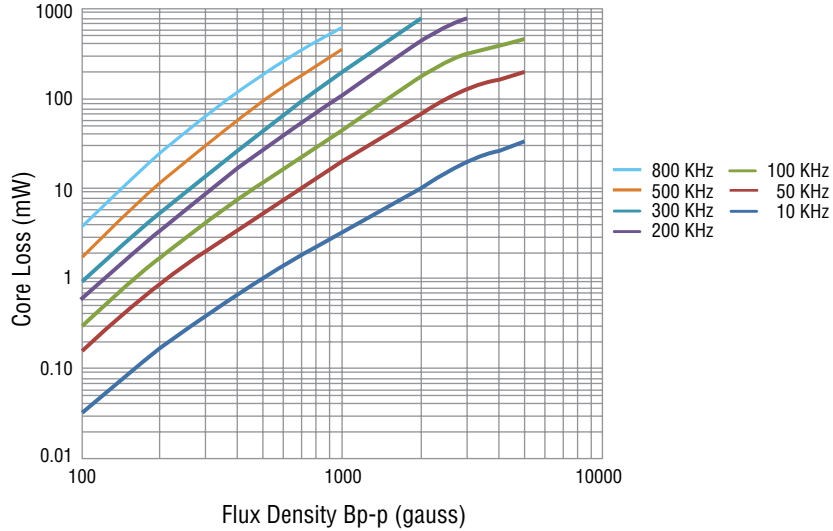
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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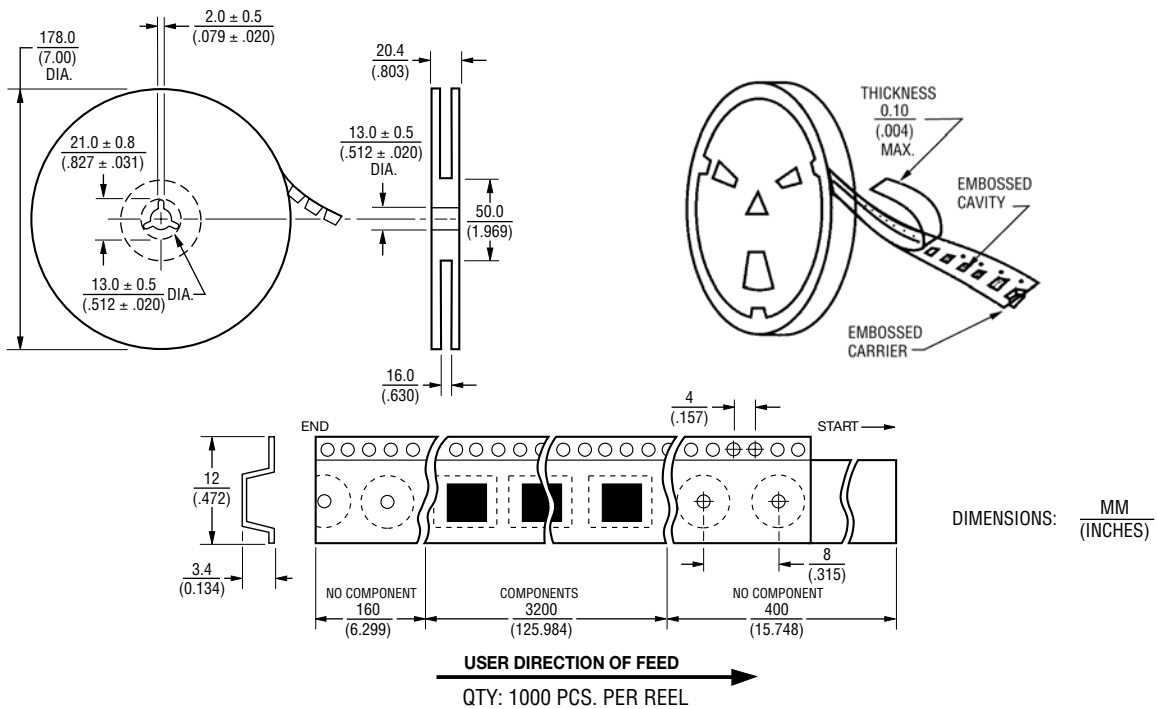
# SRR0603 Series - Shielded Power Inductors



## Core Loss vs. Flux Density



## Packaging Specifications



REV. 04/19

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