



THE DATASHEET OF SRR0603-220ML





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

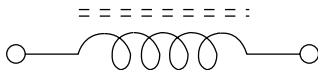
SRR0603 Series - Shielded Power Inductors

Electrical Specifications

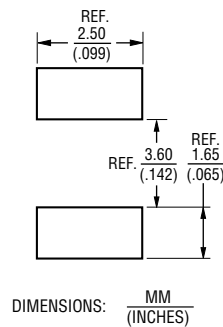
Bourns Part No.	Inductance 1 KHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)	**K- Factor
	μH	Tol. %							
SRR0603-1R5ML	1.5	± 20	20	7.96	95.0	0.032	2.20	3.50	424
SRR0603-2R5ML	2.5	± 20	19	7.96	90.0	0.040	2.00	2.95	335
SRR0603-3R3ML	3.3	± 20	16	7.96	85.0	0.055	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.

Schematic



Recommended Layout



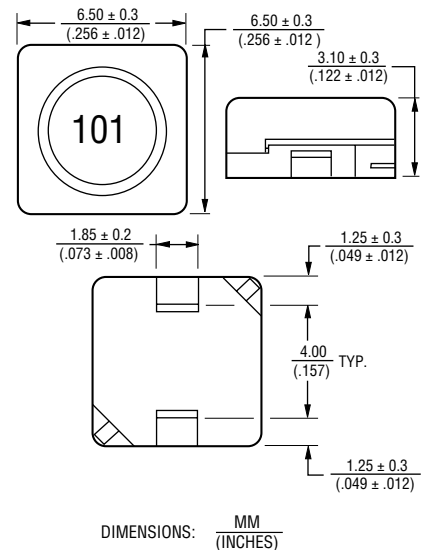
General Specifications

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



WARNING Cancer and Reproductive Harm - 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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Figure 1 is a log-log plot showing Core Loss (mW) on the Y-axis versus Flux Density B_{p-p} (gauss) on the X-axis. The X-axis ranges from 100 to 10,000 gauss, and the Y-axis ranges from 0.01 to 1,000 mW. The plot displays seven curves representing different frequencies: 800 KHz (light blue), 500 KHz (orange), 300 KHz (teal), 200 KHz (purple), 100 KHz (green), 50 KHz (red), and 10 KHz (dark blue). Core loss increases with both flux density and frequency.

Technical drawing of a 3.5mm floppy diskette showing top, side, and end views with dimensions in mm and inches.

Top View Dimensions:

- Outer Diameter: 178.0 ± 0.5 (7.00) DIA.
- Inner Hole Diameter: 21.0 ± 0.8 (.827 $\pm$.031)
- Central Hole Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.

Side View Dimensions:

- Thickness: 20.4 ± 0.5 (.803)
- Inner Hole Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.
- Distance from Inner Hole to Edge: 50.0 ± 0.5 (1.969)
- Distance from Inner Hole to Center: 16.0 ± 0.5 (.630)

End View Dimensions:

- Thickness: 0.10 ± 0.004 MAX.
- Embossed Cavity
- Embossed Carrier

End View Details:

- END
- START
- Distance from END to START: 4 ± 0.157
- Distance from START to END: 8 ± 0.315
- NO COMPONENT: 160 (6.299)
- COMPONENTS: 3200 (125.984)
- NO COMPONENT: 400 (15.748)

USER DIRECTION OF FEED

QTY: 1000 PCS. PER REEL

DIMENSIONS: MM (INCHES)

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