



**THE DATASHEET OF
SDR0603-680KL**





Features

- Available in E12 series
- Small design of only 5.8 mm maximum diameter
- Low 3.9 mm profile
- RoHS compliant*

Applications

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

SDR0603 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. %						
SDR0603-1R5ML	1.5	± 20	24	7.96	85	0.04	3.00	3.50
SDR0603-2R5ML	2.5	± 20	21	7.96	74	0.05	2.35	2.70
SDR0603-3R3ML	3.3	± 20	21	7.96	68	0.05	2.20	2.60
SDR0603-3R9ML	3.9	± 20	22	7.96	62	0.05	2.10	2.20
SDR0603-4R7ML	4.7	± 20	20	7.96	56	0.07	1.80	2.20
SDR0603-5R0ML	5.0	± 20	19	7.96	50	0.07	1.60	2.10
SDR0603-6R8ML	6.8	± 20	19	7.96	44	0.11	1.38	1.80
SDR0603-7R5ML	7.5	± 20	19	7.96	38	0.12	1.29	1.60
SDR0603-100ML	10	± 20	24	2.52	34	0.15	1.14	1.40
SDR0603-120ML	12	± 20	23	2.52	30	0.16	1.02	1.30
SDR0603-150ML	15	± 20	22	2.52	28	0.18	0.93	1.10
SDR0603-180ML	18	± 20	23	2.52	24	0.25	0.82	1.10
SDR0603-220ML	22	± 20	20	2.52	30	0.28	0.75	0.96
SDR0603-270ML	27	± 20	19	2.52	19	0.30	0.67	0.86
SDR0603-330KL	33	± 10	23	2.52	15	0.45	0.61	0.70
SDR0603-390KL	39	± 10	22	2.52	13	0.46	0.56	0.66
SDR0603-470KL	47	± 10	20	2.52	13	0.55	0.52	0.62
SDR0603-560KL	56	± 10	17	2.52	12	0.62	0.48	0.58
SDR0603-680KL	68	± 10	17	2.52	12	0.72	0.44	0.54
SDR0603-820KL	82	± 10	15	2.52	11	0.84	0.40	0.48
SDR0603-101KL	100	± 10	28	0.796	10	0.95	0.38	0.66
SDR0603-121KL	120	± 10	27	0.796	8	1.10	0.36	0.60
SDR0603-151KL	150	± 10	28	0.796	8	1.43	0.32	0.56
SDR0603-181KL	180	± 10	26	0.796	7	1.60	0.30	0.50
SDR0603-221KL	220	± 10	26	0.796	6	2.00	0.26	0.46
SDR0603-271KL	270	± 10	26	0.796	5	2.40	0.24	0.38
SDR0603-331KL	330	± 10	28	0.796	5	3.20	0.20	0.36
SDR0603-391KL	390	± 10	28	0.796	4	3.40	0.18	0.32
SDR0603-471KL	470	± 10	29	0.796	4	4.55	0.15	0.26

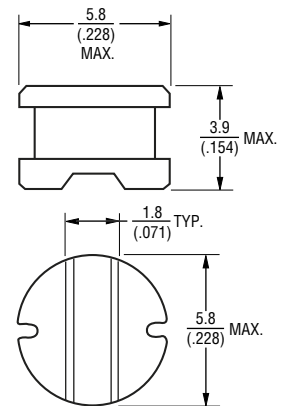
General Specifications

Test Voltage 1 V
 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

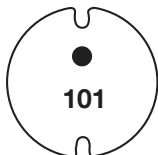
Materials

Core..... Ferrite DR core
 Wire Enameled copper
 Terminal Ag/Ni/Sn
 Rated Current..Ind. drop 10 % typ. at Isat
 Temp. Rise..... 40 °C max. at rated Irms
 Packaging..... 400 pcs. per reel

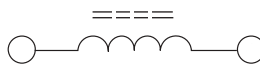
Product Dimensions



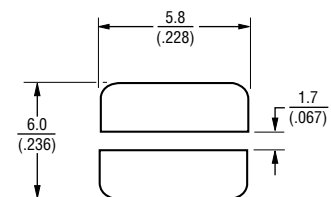
Typical Part Marking



Electrical Schematic



Recommended Layout



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$



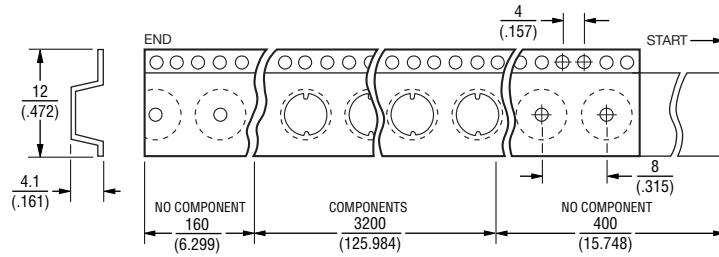
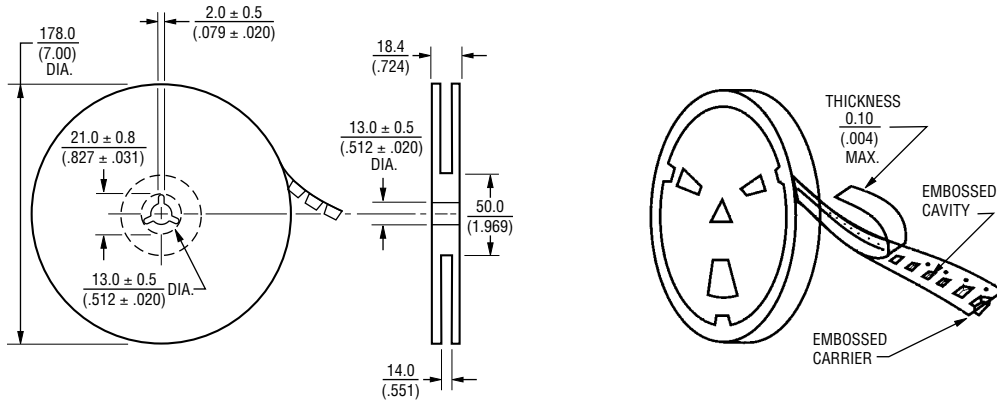
WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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SDR0603 Series - SMD Power Inductors

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED →
QTY: 400 PCS. PER REEL

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

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REV. 03/18

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Users should verify actual device performance in their specific applications.

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