



## 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 communication equipment
  - Camcorders
  - LCD TVs
  - Car radios

# SDR0603 Series - SMD Power Inductors

## Electrical Specifications

Bourns Part No.	Inductance 1kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC ( $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR0603-1R5ML	1.5	$\pm 20$	24	7.96	85	0.04	3.00	3.50
SDR0603-2R5ML	2.5	$\pm 20$	21	7.96	74	0.05	2.35	2.70
SDR0603-3R3ML	3.3	$\pm 20$	21	7.96	68	0.05	2.20	2.60
SDR0603-3R9ML	3.9	$\pm 20$	22	7.96	62	0.05	2.10	2.20
SDR0603-4R7ML	4.7	$\pm 20$	20	7.96	56	0.07	1.80	2.20
SDR0603-5R0ML	5.0	$\pm 20$	19	7.96	50	0.07	1.60	2.10
SDR0603-6R8ML	6.8	$\pm 20$	19	7.96	44	0.11	1.38	1.80
SDR0603-7R5ML	7.5	$\pm 20$	19	7.96	38	0.12	1.29	1.60
SDR0603-100ML	10	$\pm 20$	24	2.52	34	0.15	1.14	1.40
SDR0603-120ML	12	$\pm 20$	23	2.52	30	0.16	1.02	1.30
SDR0603-150ML	15	$\pm 20$	22	2.52	28	0.18	0.93	1.10
SDR0603-180ML	18	$\pm 20$	23	2.52	24	0.25	0.82	1.10
SDR0603-220ML	22	$\pm 20$	20	2.52	30	0.28	0.75	0.96
SDR0603-270ML	27	$\pm 20$	19	2.52	19	0.30	0.67	0.86
SDR0603-330KL	33	$\pm 10$	23	2.52	15	0.45	0.61	0.70
SDR0603-390KL	39	$\pm 10$	22	2.52	13	0.46	0.56	0.66
SDR0603-470KL	47	$\pm 10$	20	2.52	13	0.55	0.52	0.62
SDR0603-560KL	56	$\pm 10$	17	2.52	12	0.62	0.48	0.58
SDR0603-680KL	68	$\pm 10$	17	2.52	12	0.72	0.44	0.54
SDR0603-820KL	82	$\pm 10$	15	2.52	11	0.84	0.40	0.48
SDR0603-101KL	100	$\pm 10$	28	0.796	10	0.95	0.38	0.66
SDR0603-121KL	120	$\pm 10$	27	0.796	8	1.10	0.36	0.60
SDR0603-151KL	150	$\pm 10$	28	0.796	8	1.43	0.32	0.56
SDR0603-181KL	180	$\pm 10$	26	0.796	7	1.60	0.30	0.50
SDR0603-221KL	220	$\pm 10$	26	0.796	6	2.00	0.26	0.46
SDR0603-271KL	270	$\pm 10$	26	0.796	5	2.40	0.24	0.38
SDR0603-331KL	330	$\pm 10$	28	0.796	5	3.20	0.20	0.36
SDR0603-391KL	390	$\pm 10$	28	0.796	4	3.40	0.18	0.32
SDR0603-471KL	470	$\pm 10$	29	0.796	4	4.55	0.15	0.26

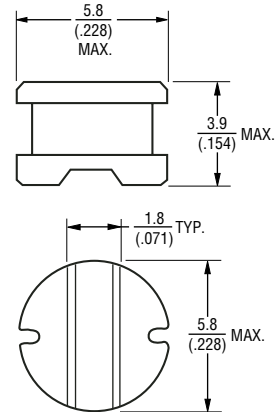
## General Specifications

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.

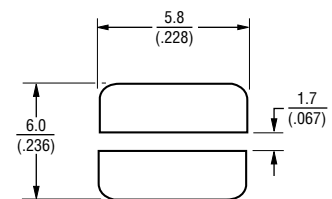
## Materials

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

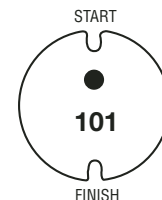
## Product Dimensions



## Recommended Layout



## Typical Part Marking



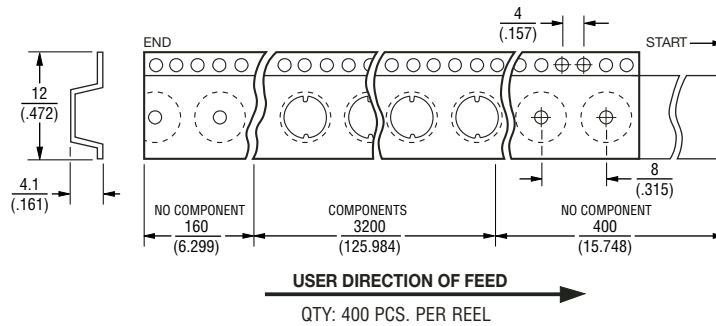
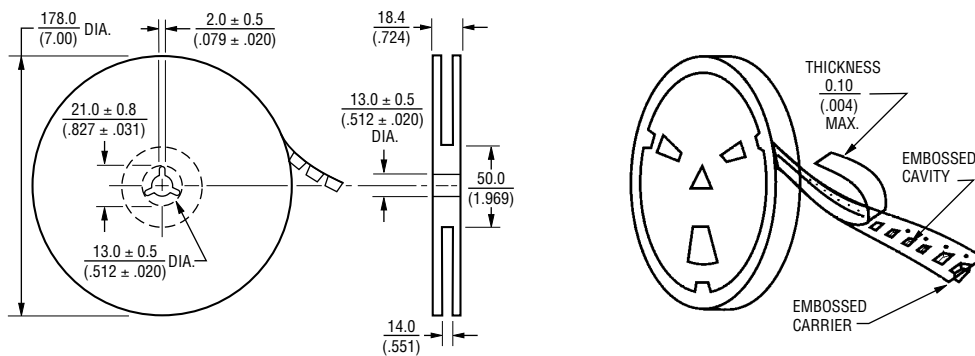
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

# SDR0603 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



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