



**THE DATASHEET OF  
SDR6603-6R8M**





### Features

- Height of 2.92 mm
- Current rating up to 2.9 amps
- RoHS compliant\*

### Applications

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

## SDR6603 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part Number	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC Max. ( $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR6603-1R0M	1.0	$\pm 20$	20	7.96	130	0.05	2.9	2.9
SDR6603-1R5M	1.5	$\pm 20$	19	7.96	115	0.05	2.8	2.6
SDR6603-2R2M	2.2	$\pm 20$	18	7.96	90	0.07	2.4	2.3
SDR6603-3R3M	3.3	$\pm 20$	18.5	7.96	70	0.08	2.0	2.0
SDR6603-4R7M	4.7	$\pm 20$	17	7.96	50	0.09	1.5	1.5
SDR6603-6R8M	6.8	$\pm 20$	15.5	7.96	45	0.13	1.4	1.2
SDR6603-8R2M	8.2	$\pm 20$	10	7.96	40	0.16	1.3	1.15
SDR6603-100M	10	$\pm 20$	17	2.52	35	0.16	1.1	1.1
SDR6603-150M	15	$\pm 20$	17	2.52	30	0.23	1.0	0.90
SDR6603-220M	22	$\pm 20$	16	2.52	20	0.37	0.80	0.70
SDR6603-330M	33	$\pm 20$	24	2.52	15	0.51	0.60	0.58
SDR6603-470M	47	$\pm 20$	15	2.52	14	0.64	0.50	0.50
SDR6603-680M	68	$\pm 20$	18	2.52	11	0.86	0.40	0.40
SDR6603-820M	82	$\pm 20$	10	2.52	10	1.18	0.35	0.35
SDR6603-101M	100	$\pm 20$	29	0.796	9	1.3	0.30	0.31
SDR6603-151M	150	$\pm 20$	41	0.796	6	2.0	0.25	0.27
SDR6603-221M	220	$\pm 15$	33	0.796	5.5	3.2	0.20	0.22
SDR6603-331M	330	$\pm 15$	42	0.796	5	3.8	0.16	0.18
SDR6603-471M	470	$\pm 15$	42	0.796	4	5.1	0.15	0.16
SDR6603-681M	680	$\pm 15$	58	0.796	3	9.2	0.12	0.14
SDR6603-821M	820	$\pm 15$	40	0.796	2.5	12.6	0.10	0.12
SDR6603-102M	1000	$\pm 15$	71	0.252	2	13.8	0.07	0.10

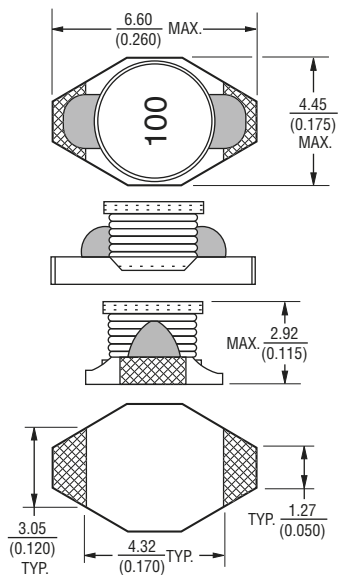
### General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ... 230 °C, 50 sec. max  
 Operating Temp. .... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature.. -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C, 10 sec. max.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

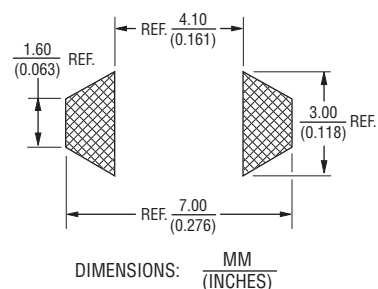
### Materials

Core ..... Ferrite  
 Wire ..... Enamelled copper  
 Base ..... Ceramic  
 Adhesive..... Epoxy resin  
 Terminal..... Ag/Ni/Au  
 Rated Current  
 ..... Ind. drop 10 % typ. at Isat  
 Temp. Rise ... 15 °C typical at rated I rms  
 Packaging..... 600 pcs. per reel

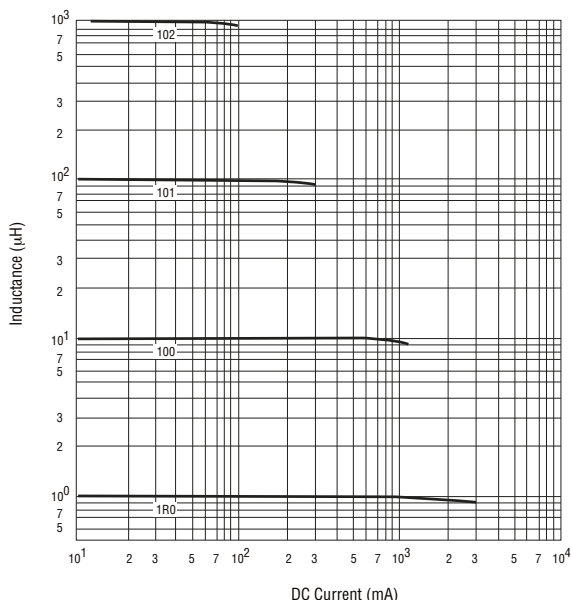
### Product Dimensions



### Recommended Layout



### Inductance vs. Current



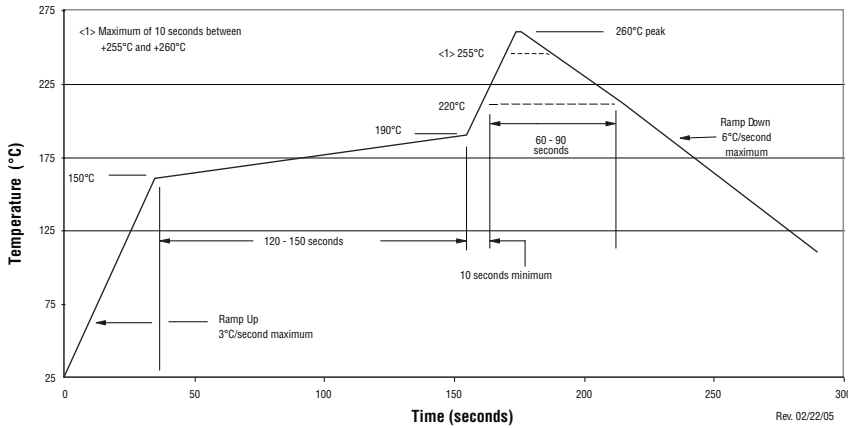
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*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. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

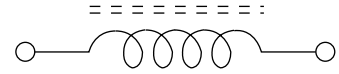
# SDR6603 Series - SMD Power Inductors

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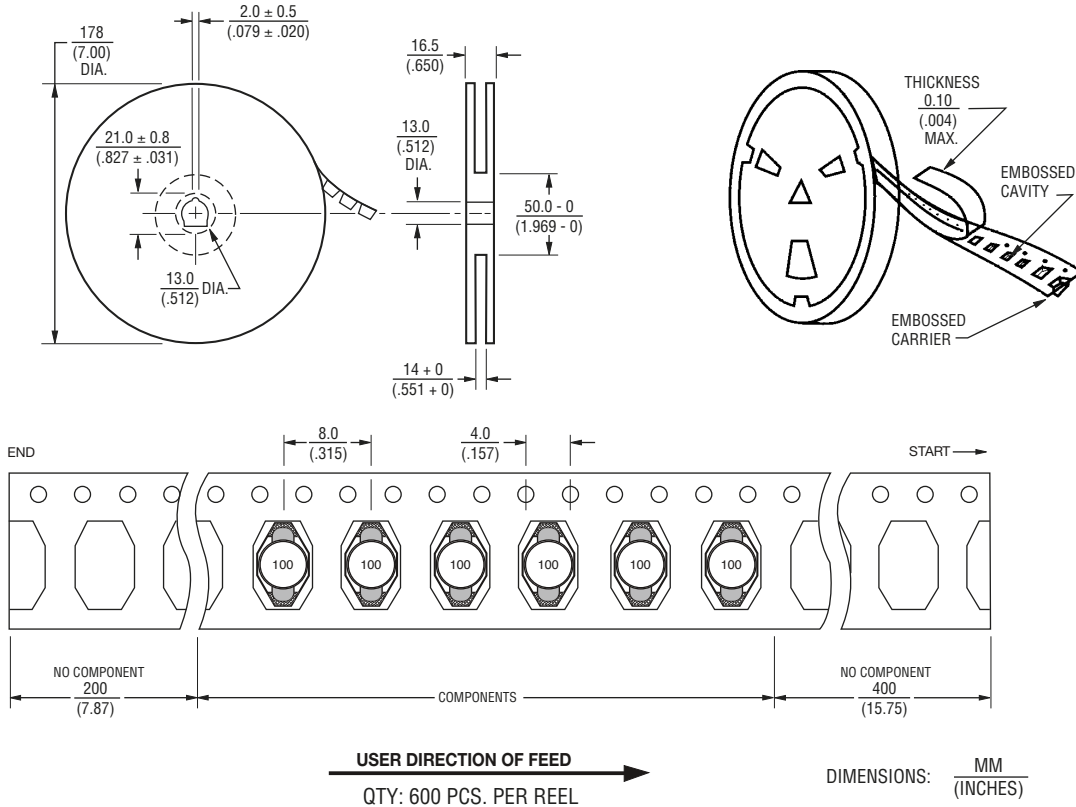
## Soldering Profile



## Electrical Schematic



## Packaging Specifications



REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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