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

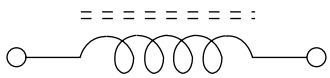
Bourns Part Number	Inductance 100 kHz (µH)	Tol. %	Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)
SDR6603-1R0M	1.0	± 20	20	7.96	130	0.05	2.9	2.9
SDR6603-1R5M	1.5	± 20	19	7.96	115	0.05	2.8	2.6
SDR6603-2R2M	2.2	± 20	18	7.96	90	0.07	2.4	2.3
SDR6603-3R3M	3.3	± 20	18.5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

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Electrical Schematic



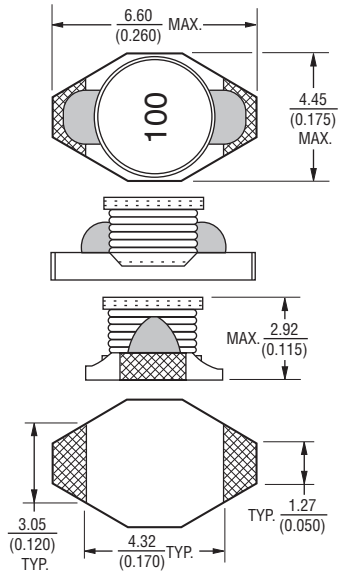
General Specifications

Test Voltage ..... 0.1 V
Operating Temp. ..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature.. -40 °C to +125 °C
Moisture Sensitivity Level 1
ESD Classification (HBM).....N/A

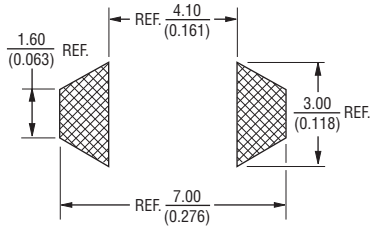
Materials

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 Irms
Packaging..... 600 pcs. per reel

Product Dimensions



Recommended Layout

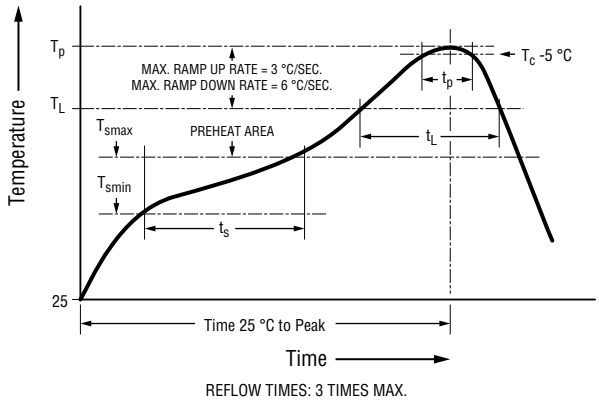


DIMENSIONS: MM (INCHES)

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See 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.

Soldering Profile

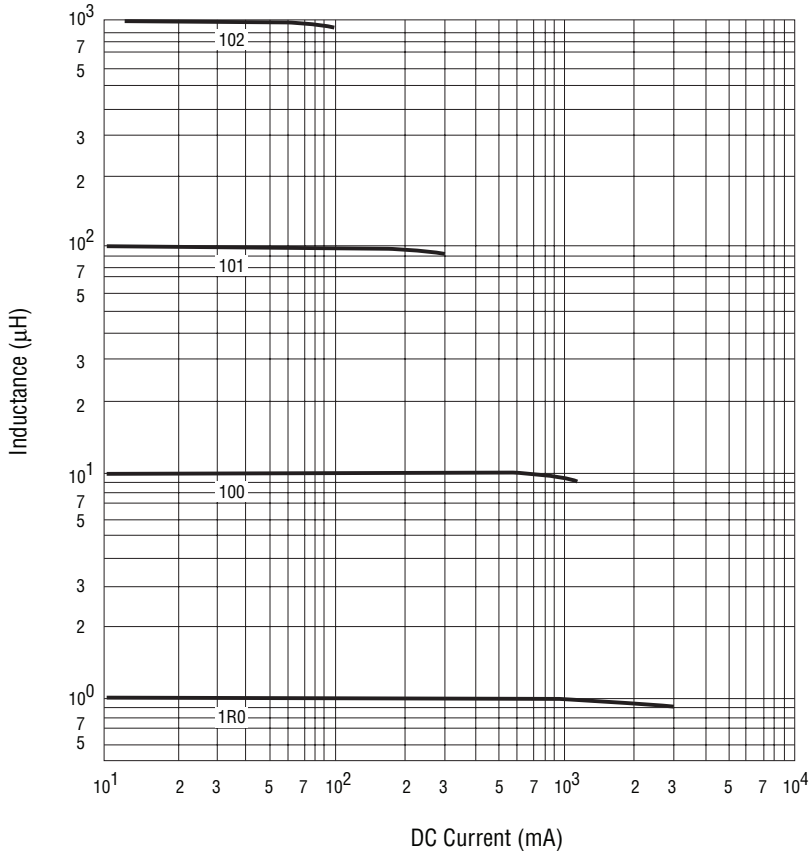


REFLOW TIMES: 3 TIMES MAX.

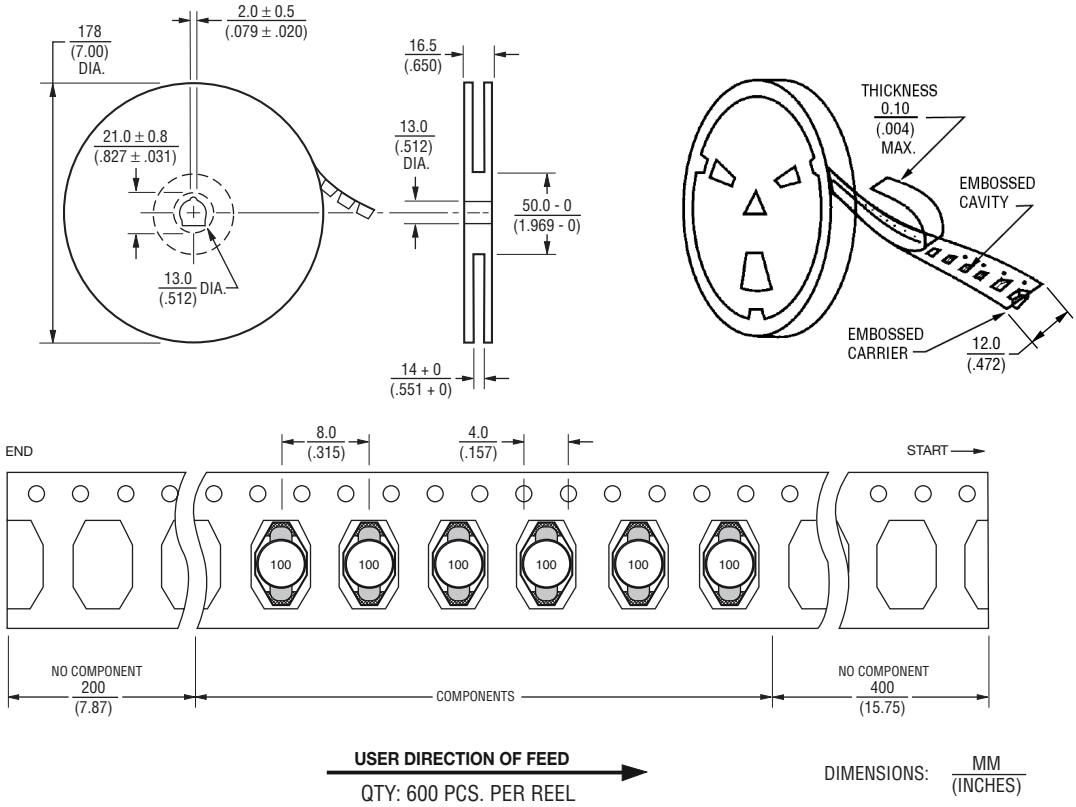
Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Classification temperature (T_c)	250 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

Refer to IPC/JEDEC J-STD-020E.

Inductance vs. Current



Packaging Specifications



REV. 03/26

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