



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### Features

- Unit height of 2.9 mm
- Inductance range: 1 to 1000  $\mu$ H
- Rated current up to 2.9 A
- RoHS compliant\*

### Applications

- DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Laptop computers
  - Camcorders, HDTV, car audio systems

**BOURNS®**

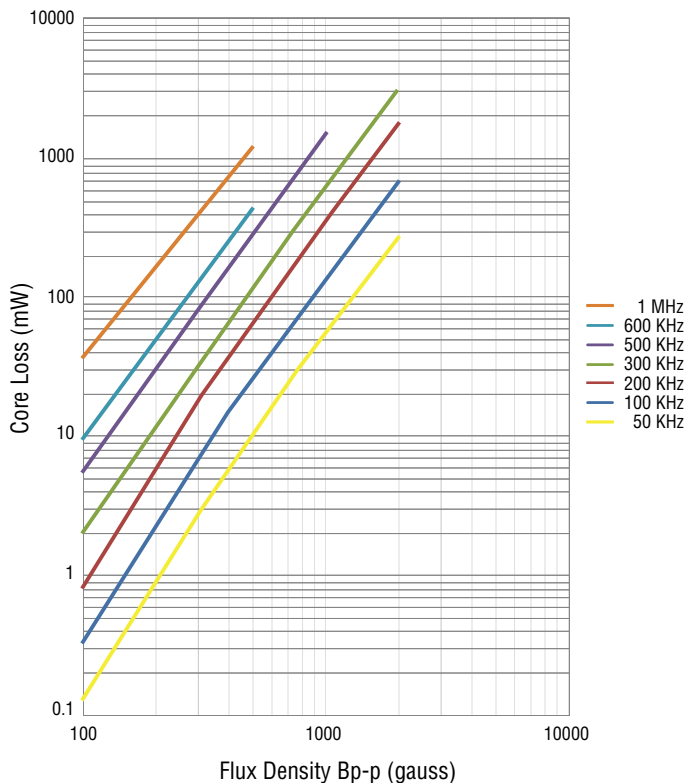
## SDE6603 Series - SMD Power Inductors

### Electrical Characteristics

Bourns Part No.	Inductance @ 100KHz L ( $\mu$ H) $\pm 20\%$	SRF (MHz) Typ.	DCR ( $\Omega$ ) Max.	I rms (A)	I sat (A)	**K-Factor
SDE6603-1R0M	1.0	130	0.05	2.9	2.9	1000
SDE6603-1R5M	1.5	115	0.06	2.8	2.6	867
SDE6603-2R2M	2.2	90	0.07	2.4	2.3	684
SDE6603-3R3M	3.3	70	0.08	2.0	2.0	520
SDE6603-4R7M	4.7	50	0.09	1.5	1.5	448
SDE6603-6R8M	6.8	45	0.13	1.4	1.2	371
SDE6603-100M	10	35	0.16	1.1	1.1	302
SDE6603-150M	15	30	0.23	1.0	0.9	245
SDE6603-220M	22	20	0.37	0.8	0.7	200
SDE6603-330M	33	15	0.51	0.6	0.58	160
SDE6603-470M	47	14	0.64	0.5	0.5	137
SDE6603-680M	68	11	0.86	0.4	0.4	70
SDE6603-101M	100	9	1.27	0.3	0.31	57
SDE6603-151M	150	6	2.0	0.25	0.27	45
SDE6603-221M	220	5.5	3.11	0.2	0.22	38
SDE6603-331M	330	5	3.8	0.16	0.18	30
SDE6603-471M	470	4	5.06	0.15	0.16	26
SDE6603-681M	680	3	9.2	0.12	0.14	22
SDE6603-102M	1000	2	13.8	0.07	0.1	18

\*\*K-Factor: To calculate core flux density,  $B_p$ -p (gauss) =  $K \times L(\mu H) \times \Delta I$  (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot.

### Core Loss vs. Flux Density



The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

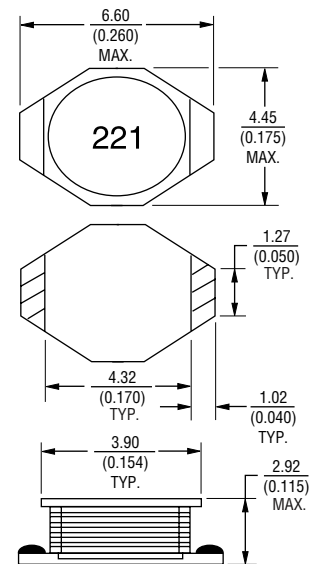
### General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ..... 230 °C, 50 sec max.  
 Operating Temperature... -25 °C to +105 °C  
 (Temperature rise included)  
 Storage Temperature..... -40 °C to +125 °C  
 Resistance to Soldering Heat  
 ..... 260 °C for 10 sec.

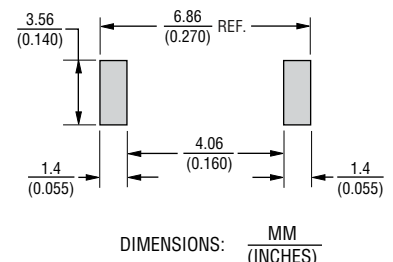
### Materials

Core..... Ferrite  
 Wire ..... Enamelled copper  
 Base ..... Ceramic  
 Adhesive..... Epoxy resin  
 Terminal ..... Ag/Ni/Au  
 Rated Current  
 ..... Ind. drop of 10 % typ. at Isat  
 Temperature Rise ..... 40 °C typical at I rms  
 Packaging..... 2000 pcs. per 13-inch reel

### Product Dimensions



### Recommended Layout

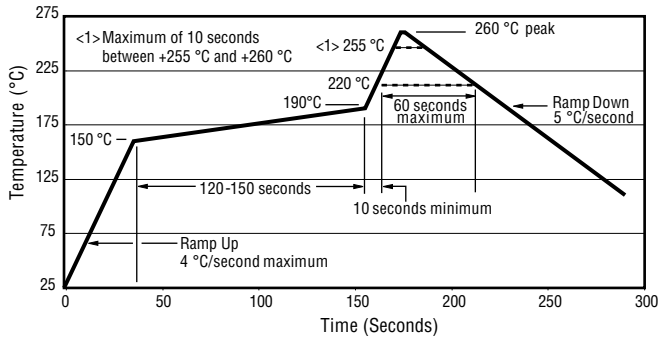


\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

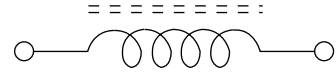
# SDE6603 Series - SMD Power Inductors



## Soldering Profile



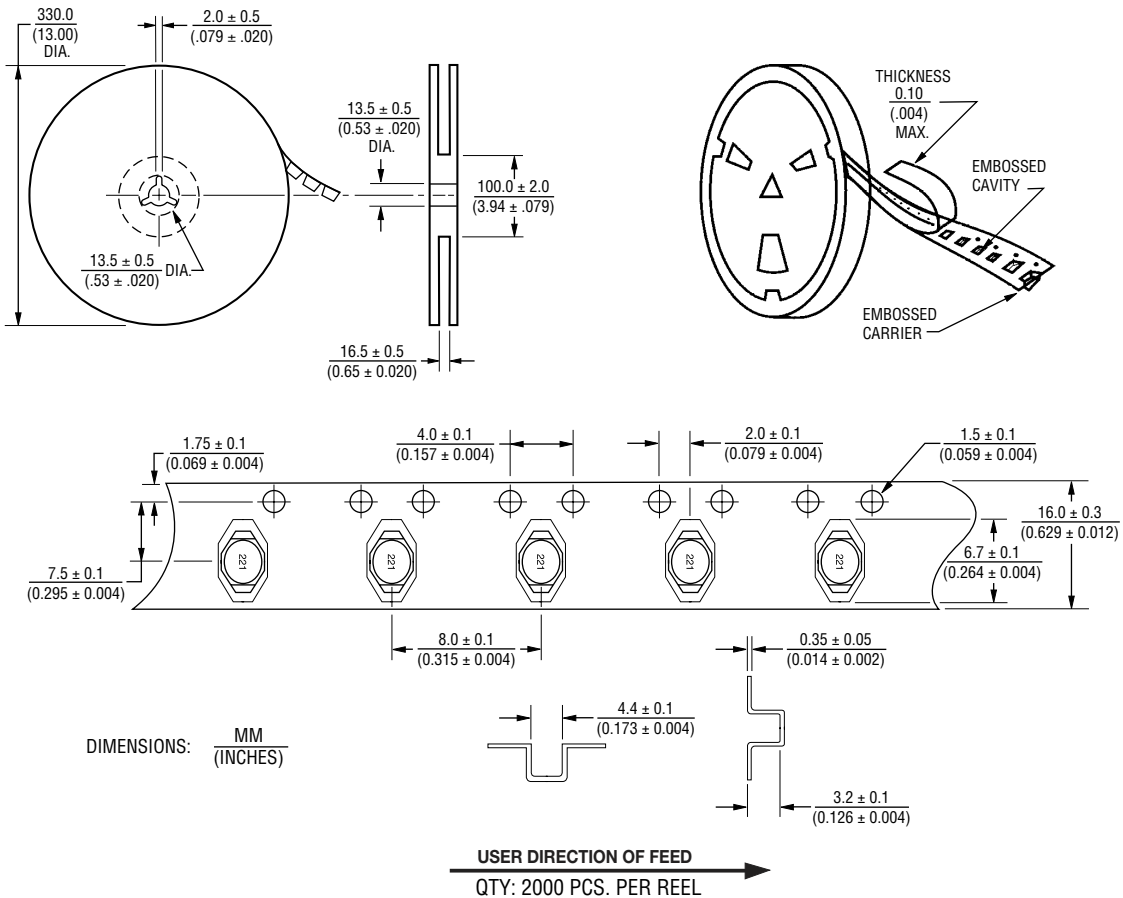
## Schematic



## How to Order

Model **SDE6603 - 100M**  
 Value Code (see table)

## Packaging Specifications



REV. 02/17

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