



## Features

- Available in E12 series
- Small diameter of only 5.8 mm maximum
- Profile of 4.8 mm
- RoHS compliant\*

## Applications

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

# SDR0604 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. %						
SDR0604-1R2ML	1.2	± 20	35	7.96	155	0.02	4.2	7.30
SDR0604-1R5ML	1.5	± 20	32	7.96	108	0.03	3.60	6.10
SDR0604-2R2ML	2.2	± 20	33	7.96	79	0.06	2.80	5.10
SDR0604-2R7ML	2.7	± 20	22	7.96	65	0.06	2.30	3.80
SDR0604-3R3ML	3.3	± 20	22	7.96	60	0.07	2.00	3.50
SDR0604-3R9ML	3.9	± 20	22	7.96	40	0.07	1.90	3.20
SDR0604-4R7ML	4.7	± 20	20	7.96	34	0.08	1.80	3.00
SDR0604-5R6ML	5.6	± 20	20	7.96	30	0.08	1.70	2.70
SDR0604-6R8ML	6.8	± 20	20	7.96	28	0.12	1.60	2.50
SDR0604-8R2ML	8.2	± 20	20	7.96	26	0.09	1.50	2.30
SDR0604-100ML	10	± 20	30	2.52	23	0.10	1.45	2.00
SDR0604-120ML	12	± 20	30	2.52	22	0.12	1.40	1.90
SDR0604-150YL	15	± 15	30	2.52	20	0.14	1.30	1.60
SDR0604-180YL	18	± 15	30	2.52	18	0.15	1.25	1.50
SDR0604-220YL	22	± 15	30	2.52	16	0.19	1.10	1.40
SDR0604-270YL	27	± 15	28	2.52	14	0.22	1.00	1.30
SDR0604-330KL	33	± 10	24	2.52	13	0.25	0.88	1.10
SDR0604-390KL	39	± 10	24	2.52	13	0.32	0.80	1.00
SDR0604-470KL	47	± 10	22	2.52	12	0.37	0.72	1.00
SDR0604-560KL	56	± 10	22	2.52	11	0.42	0.68	0.90
SDR0604-680KL	68	± 10	22	2.52	10	0.52	0.62	0.84
SDR0604-820KL	82	± 10	20	2.52	9	0.60	0.58	0.75
SDR0604-101KL	100	± 10	20	0.796	9	0.70	0.52	0.68
SDR0604-121KL	120	± 10	22	0.796	7	0.93	0.48	0.60
SDR0604-151KL	150	± 10	20	0.796	6	1.10	0.40	0.54
SDR0604-181KL	180	± 10	20	0.796	6	1.38	0.38	0.50
SDR0604-221KL	220	± 10	20	0.796	6	1.57	0.35	0.44
SDR0604-271KL	270	± 10	26	0.796	4	1.88	0.32	0.40
SDR0604-331KL	330	± 10	25	0.796	3	2.25	0.27	0.36
SDR0604-391KL	390	± 10	25	0.796	3	2.48	0.25	0.34
SDR0604-471KL	470	± 10	25	0.796	3	3.30	0.21	0.30
SDR0604-561KL	560	± 10	24	0.252	3	4.00	0.18	0.26
SDR0604-681KL	680	± 10	26	0.252	2	4.65	0.16	0.25
SDR0604-821KL	820	± 10	25	0.252	2	5.20	0.14	0.20
SDR0604-102KL	1000	± 10	45	0.252	1.5	6.80	0.12	0.12

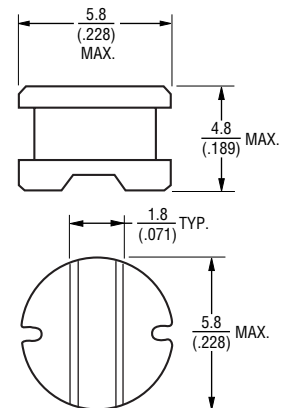
## General Specifications

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.

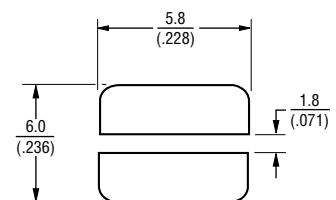
## Materials

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 Irms  
 Packaging.....400 pcs. per reel

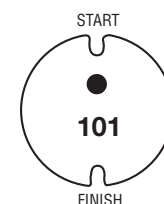
## Product Dimensions



## Recommended Layout



## Typical Part Marking



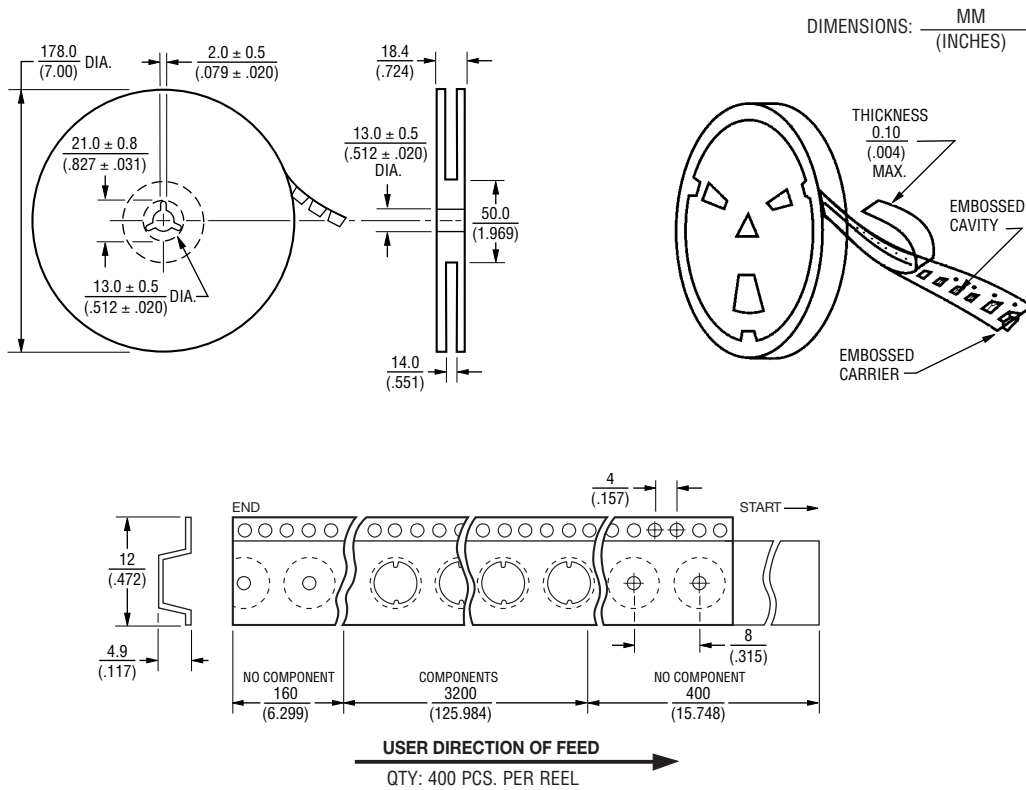
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*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.

# SDR0604 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 09/10

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