



### Features

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

### Applications

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

## SDR0604 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part Number	Inductance 100 kHz		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

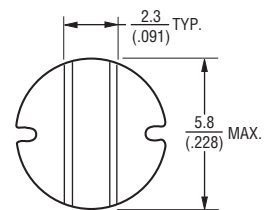
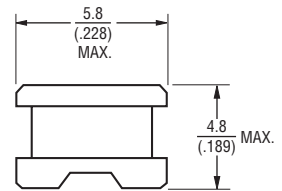
### General Specifications

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..  
 Moisture Sensitivity Level ..... 1  
 ESD Classification (HBM)..... N/A

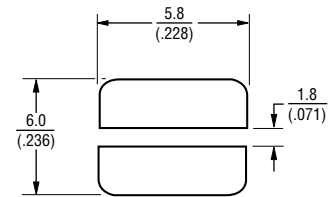
### Materials

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

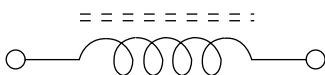


### Recommended Layout

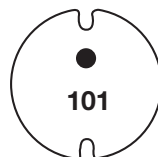


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### Electrical Schematic



### Typical Part Marking



\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

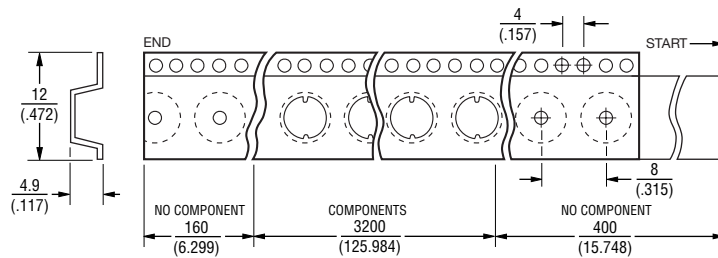
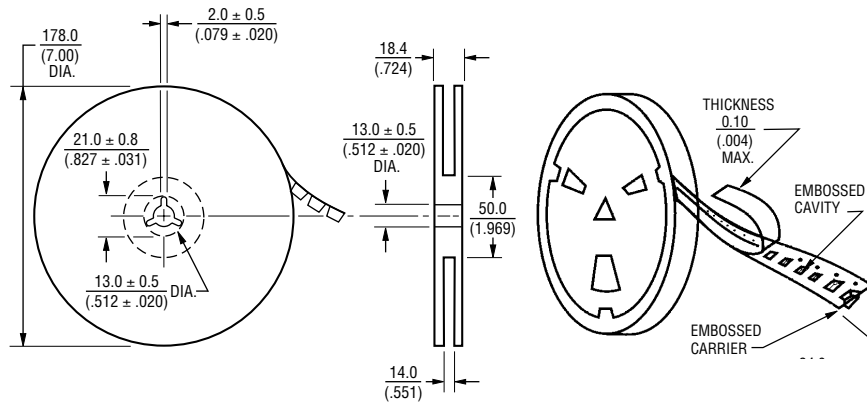
Specifications are subject to change without notice.

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.

# SDR0604 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 400 PCS. PER REEL

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

REV. 12/17

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