



**THE DATASHEET OF  
SDR0805-820KL**





## Features

- Available in E12 series
- Small design of only 7.8 mm max. diameter
- RoHS compliant\*

## Applications

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

# SDR0805 Series - SMD Power Inductors

## Electrical Specifications

Bourns Part Number	Inductance 1 kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. (Ω)	I rms Max. (A)	I sat Typ. (A)
	(μH)	Tol. %						
SDR0805-1R5ML	1.5	± 20	32	7.96	120	0.02	6.00	9.10
SDR0805-2R5ML	2.5	± 20	32	7.96	70	0.02	5.00	7.20
SDR0805-3R3ML	3.3	± 20	32	7.96	55	0.02	4.50	6.30
SDR0805-3R9ML	3.9	± 20	32	7.96	45	0.02	4.40	5.70
SDR0805-4R7ML	4.7	± 20	31	7.96	38	0.03	3.70	5.00
SDR0805-5R6ML	5.6	± 20	31	7.96	34	0.04	3.50	4.60
SDR0805-6R8ML	6.8	± 20	30	7.96	33	0.04	3.20	4.10
SDR0805-7R5ML	7.5	± 20	29	7.96	30	0.05	2.80	3.70
SDR0805-8R2ML	8.2	± 20	29	7.96	30	0.05	2.80	3.70
SDR0805-100ML	10	± 20	25	2.52	22	0.07	2.30	3.20
SDR0805-120ML	12	± 20	25	2.52	20	0.08	2.00	3.00
SDR0805-150ML	15	± 20	25	2.52	16	0.09	1.80	2.70
SDR0805-180ML	18	± 20	20	2.52	15	0.10	1.60	2.60
SDR0805-220ML	22	± 20	20	2.52	13	0.11	1.50	2.30
SDR0805-270KL	27	± 20	20	2.52	12	0.12	1.30	2.10
SDR0805-330KL	33	± 10	15	2.52	10	0.14	1.20	1.90
SDR0805-390KL	39	± 10	15	2.52	10	0.16	1.10	1.70
SDR0805-470KL	47	± 10	15	2.52	9	0.20	1.00	1.60
SDR0805-560KL	56	± 10	15	2.52	9	0.24	0.94	1.50
SDR0805-680KL	68	± 10	15	2.52	8	0.30	0.85	1.30
SDR0805-820KL	82	± 10	12	2.52	7	0.37	0.78	1.20
SDR0805-101KL	100	± 10	12	0.796	7	0.45	0.72	1.10
SDR0805-121KL	120	± 10	12	0.796	6	0.48	0.66	1.00
SDR0805-151KL	150	± 10	12	0.796	6	0.68	0.58	0.85
SDR0805-181KL	180	± 10	12	0.796	5	0.77	0.51	0.80
SDR0805-221KL	220	± 10	12	0.796	5	0.96	0.49	0.80
SDR0805-271KL	270	± 10	12	0.796	5	1.11	0.42	0.66
SDR0805-331KL	330	± 10	12	0.796	4	1.26	0.40	0.58
SDR0805-391KL	390	± 10	12	0.796	4	1.77	0.36	0.55
SDR0805-471KL	470	± 10	12	0.796	4	1.96	0.34	0.50
SDR0805-561KL	560	± 10	30	0.796	4	2.50	0.30	0.46
SDR0805-681KL	680	± 10	29	0.796	3	2.80	0.28	0.42
SDR0805-821KL	820	± 10	28	0.796	3	4.00	0.23	0.35
SDR0805-102KL	1000	± 10	27	0.252	3	4.50	0.21	0.34
SDR0805-122KL	1200	± 10	28	0.252	2	6.80	0.17	0.28
SDR0805-152KL	1500	± 10	27	0.252	2	8.00	0.15	0.26
SDR0805-182KL	1800	± 10	30	0.252	2	9.20	0.14	0.23
SDR0805-222KL	2200	± 10	29	0.252	2	10.00	0.13	0.20
SDR0805-272KL	2700	± 10	31	0.252	1	11.80	0.12	0.18
SDR0805-332KL	3300	± 10	28	0.252	1	16.50	0.10	0.17
SDR0805-392KL	3900	± 10	28	0.252	1	18.00	0.09	0.16
SDR0805-472KL	4700	± 10	30	0.252	1	21.00	0.08	0.15

## General Specifications

Test Frequency ..... 1 KHz  
 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

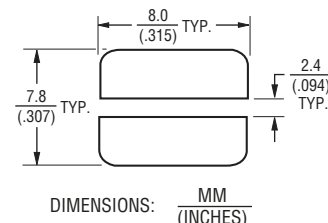
## Materials

Core ..... Ferrite DR  
 Wire ..... Enameled copper  
 Base ..... DAP  
 Terminal ..... Ag/Ni/Sn  
 Rated Current..Ind. drop 10 % typ. at Isat  
 Temp. Rise..... 40 °C max. at rated Irms  
 Packaging..... 1000 pcs. per reel

## Product Dimensions



## Recommended Layout



## Typical Part Marking



**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.  
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# SDR0805 Series - SMD Power Inductors

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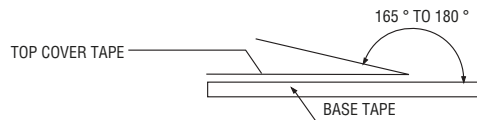
## Packaging Specifications



## Materials

Paper  
Plastics

## Strength of Cover Tape



The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

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