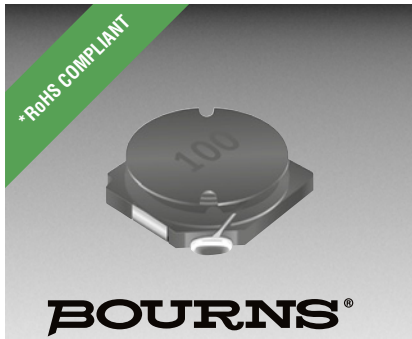




**THE DATASHEET OF  
SDR1305-102K**





## Features

- Available in E6 values
- Current rating to 7.2 amps
- RoHS compliant\*

## Applications

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

# SDR1305 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part Number	Inductance 100 kHz		Q Typ.	Test Frequency (MHz)	SRF Min. (MHz)	RDC Max. ( $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR1305-2R5Y	2.5	$\pm 25$	19	7.96	61	0.0098	7.20	8.00
SDR1305-3R5Y	3.5	$\pm 25$	20	7.96	43	0.0105	6.00	7.00
SDR1305-4R6Y	4.6	$\pm 25$	18	7.96	35	0.0165	5.20	6.00
SDR1305-6R8Y	6.8	$\pm 25$	17	7.96	32	0.0240	4.30	5.20
SDR1305-100M	10.0	$\pm 20$	35	2.52	27	0.0370	3.60	4.40
SDR1305-150M	15.0	$\pm 20$	28	2.52	24	0.0460	3.30	3.70
SDR1305-220M	22.0	$\pm 20$	27	2.52	20	0.0620	2.90	3.00
SDR1305-330M	33.0	$\pm 20$	23	2.52	16	0.0850	2.50	2.60
SDR1305-470M	47.0	$\pm 20$	24	2.52	13	0.1300	1.90	2.00
SDR1305-680M	68.0	$\pm 20$	22	2.52	11	0.1650	1.65	1.80
SDR1305-101K	100.0	$\pm 10$	20	0.796	11	0.2550	1.40	1.40
SDR1305-151K	150.0	$\pm 10$	17	0.796	8	0.3800	1.20	1.15
SDR1305-221K	220.0	$\pm 10$	16	0.796	7	0.5000	1.00	0.95
SDR1305-331K	330.0	$\pm 10$	11	0.796	6	0.7000	0.85	0.80
SDR1305-471K	470.0	$\pm 10$	14	0.796	4	1.1500	0.67	0.70
SDR1305-681K	680.0	$\pm 10$	12	0.796	3.5	1.4000	0.60	0.58
SDR1305-102K	1000.0	$\pm 10$	41	0.252	2.7	2.3500	0.46	0.47
SDR1045-102K	1000.0	$\pm 10$	25	0.252	2.9	4.700	0.38	0.40

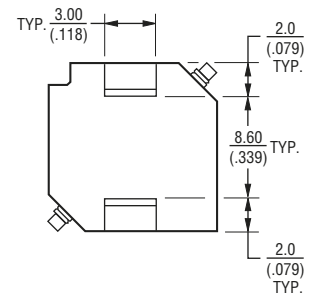
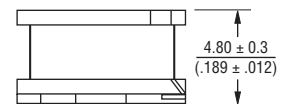
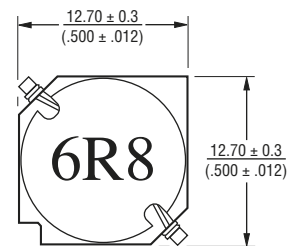
### General Specifications

Test Voltage ..... 10 mV  
 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 10 sec.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

### Materials

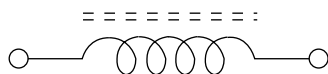
Core ..... Ferrite DR  
 Wire ..... Enamelled copper wire 130  
 Terminal..... Cu/Sn  
 Rated Current  
 ..... Ind. drop 25 % typ. at Isat  
 Temperature Rise  
 ..... 40 °C max. at rated I rms  
 Packaging..... 600 pcs. per reel

### Product Dimensions

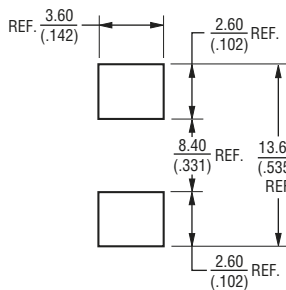


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### Electrical Schematic



### Recommended Layout



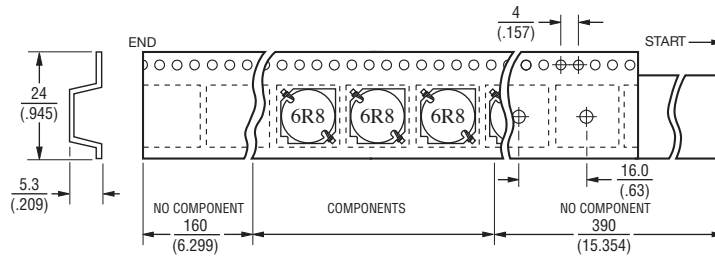
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# SDR1305 Series - SMD Power Inductors

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 600 PCS. PER REEL

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

**BOURNS®**

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