

## Features

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

## Applications

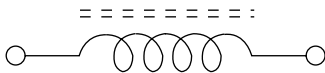
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# SDR1305 Series - SMD Power Inductors

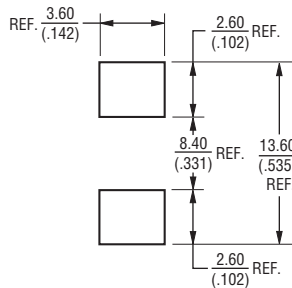
## Electrical Specifications

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

## Electrical Schematic



## Recommended Layout



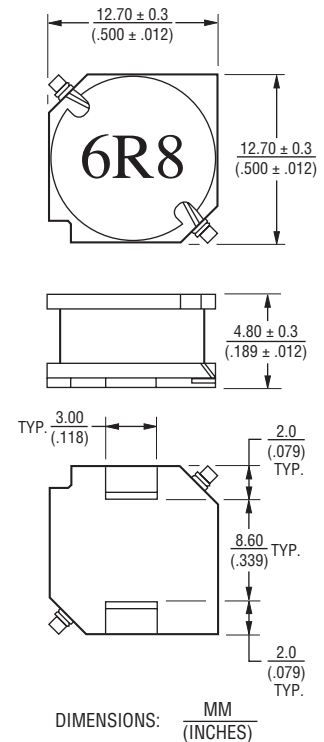
## General Specifications

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



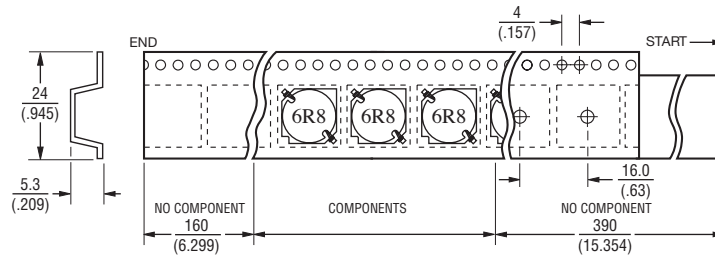
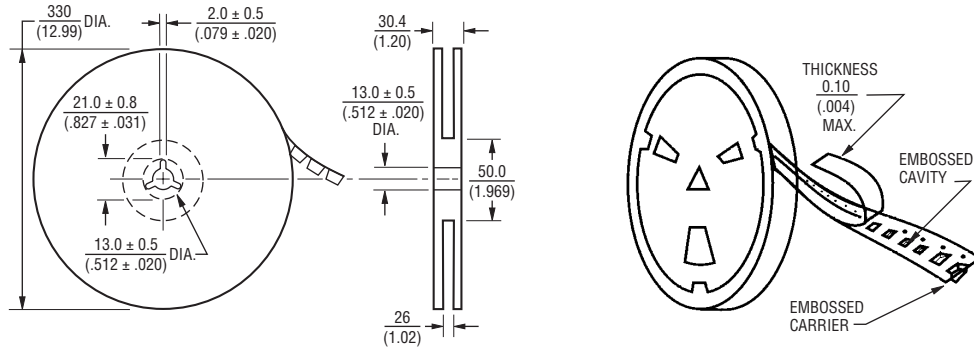
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*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.

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**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED

QTY: 600 PCS. PER REEL

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

REV. 03/18

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