



### Features

- Available in E6 series
- Low profile of only 5.0 mm
- Inductance as low as 1  $\mu$ H
- RoHS compliant\*

### Applications

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

## SDR1005 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part No.	Inductance 1kHz		Q Ref.	Test Frequency (MHz)	SRF Min. (MHz)	RDC ( $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR1005-1R0ML	1	$\pm 20$	20	10	137	0.007	7.50	9.00
SDR1005-1R5ML	1.5	$\pm 20$	50	3	95	0.009	6.50	8.00
SDR1005-2R5ML	2.5	$\pm 20$	50	3	56	0.012	5.50	7.00
SDR1005-3R3ML	3.3	$\pm 20$	50	4	54	0.015	5.00	6.40
SDR1005-4R7ML	4.7	$\pm 20$	50	4	42	0.019	4.50	5.40
SDR1005-6R8ML	6.8	$\pm 20$	50	3	31	0.030	3.40	4.50
SDR1005-100ML	10	$\pm 20$	50	3	26	0.050	2.90	3.70
SDR1005-150ML	15	$\pm 20$	50	3	22	0.060	2.50	3.00
SDR1005-220ML	22	$\pm 20$	40	3	18	0.10	2.00	2.50
SDR1005-330KL	33	$\pm 10$	25	1	14	0.12	1.80	2.00
SDR1005-470KL	47	$\pm 10$	25	1	12	0.19	1.40	1.60
SDR1005-680KL	68	$\pm 10$	25	1	11	0.24	1.20	1.40
SDR1005-101KL	100	$\pm 10$	30	0.05	8	0.33	1.00	1.20
SDR1005-151KL	150	$\pm 10$	30	0.05	6	0.59	0.80	1.00
SDR1005-221KL	220	$\pm 10$	33	0.05	5	0.78	0.70	0.80
SDR1005-331KL	330	$\pm 10$	33	0.05	4	1.15	0.55	0.60
SDR1005-471KL	470	$\pm 10$	57	0.05	4	1.70	0.45	0.50
SDR1005-681KL	680	$\pm 10$	57	0.05	3	2.60	0.35	0.40
SDR1005-102KL	1000	$\pm 10$	81	0.07	2	3.90	0.30	0.35
SDR1005-152KL	1500	$\pm 10$	91	0.07	2	6.30	0.25	0.30
SDR1005-222KL	2200	$\pm 10$	91	0.07	2	8.20	0.20	0.24
SDR1005-332KL	3300	$\pm 10$	93	0.07	1	14.00	0.16	0.18
SDR1005-472KL	4700	$\pm 10$	93	0.07	1	17.00	0.15	0.16
SDR1005-682KL	6800	$\pm 10$	93	0.07	1	30.00	0.11	0.12
SDR1005-822KL	8200	$\pm 10$	100	0.07	1	34.00	0.11	0.12
SDR1005-103KL	10000	$\pm 10$	101	0.07	1	39.00	0.10	0.11

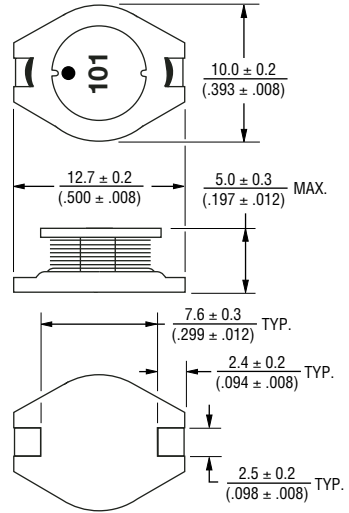
### General Specifications

Test Voltage.....0.1 V  
 Reflow soldering.....250 °C; 10 sec max.  
 (In compliance with JEDEC, J-STD-020C, Table 4-2)  
 Operating Temperature .-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature...-40 °C to +125 °C  
 Resistance to Soldering Heat  
 .....250 °C, 10 sec. max.

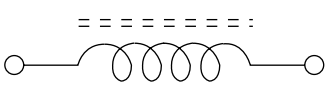
### Materials

Core.....Ferrite DR  
 Wire.....Enameled copper  
 Base.....LCP E4008  
 Terminal.....Cu/Ni/Sn  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise .....15 °C max.  
 at rated Irms  
 Packaging.....600 pcs. per reel

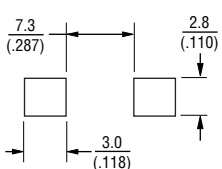
### Product Dimensions



### Electrical Schematic



### Recommended Layout



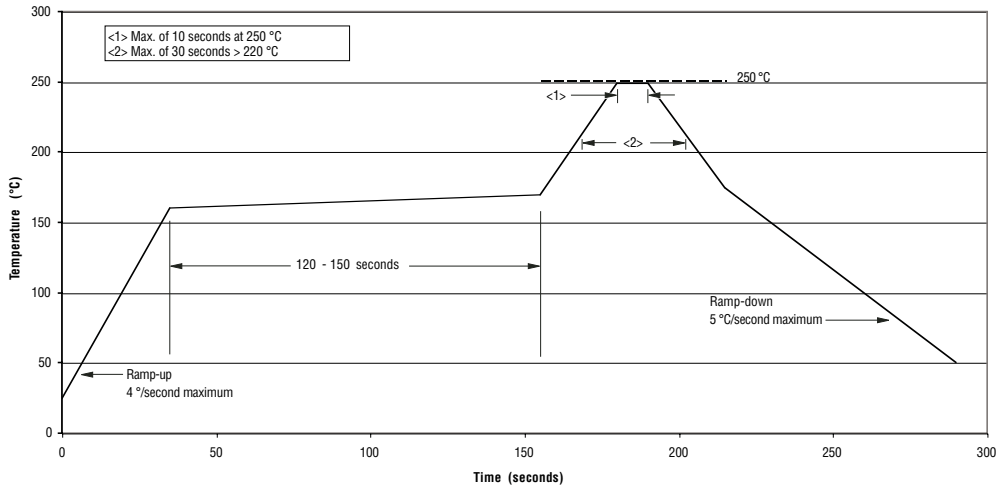
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*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.

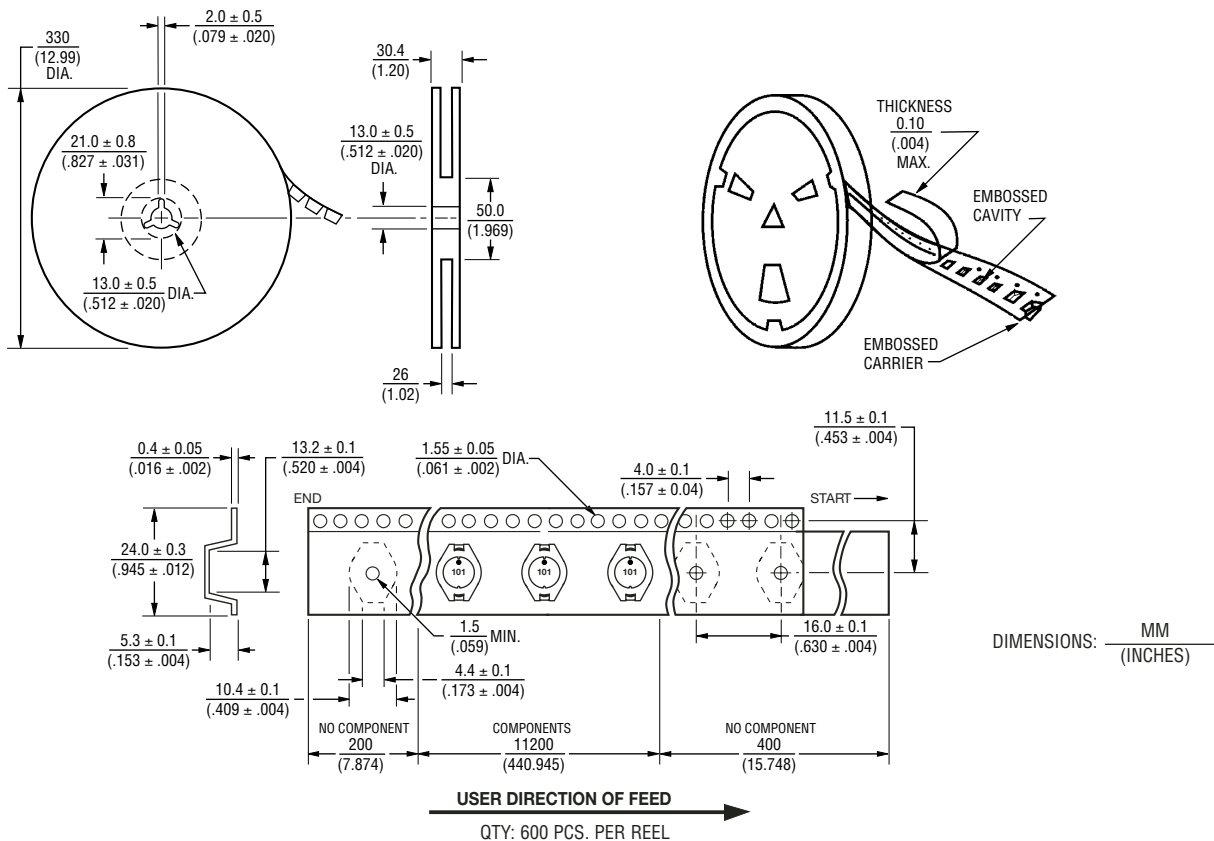
# SDR1005 Series - SMD Power Inductor

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 02/06

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