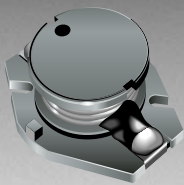


LEAD FREE  
VERSIONS ARE  
ROHS COMPLIANT



**BOURNS®**

## Features

- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1  $\mu$ H
- Lead free version available (see How to Order)
- Lead free versions are RoHS compliant\*

## Applications

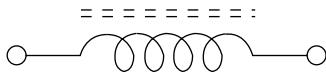
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communications equipment
  - Camcorders
  - LCD TVs
  - Car radios

# SDR1806 Series - SMD Power Inductors

### Electrical Specifications

Bourns Part No.	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR1806-1R0M_	1	$\pm 20$	21	7.96	100.0	4.0	10.0	30.00
SDR1806-2R2M_	2.2	$\pm 20$	22	7.96	55.0	6.8	9.00	22.00
SDR1806-3R3M_	3.3	$\pm 20$	22	7.96	40.0	9.8	7.60	17.00
SDR1806-5R6M_	5.6	$\pm 20$	23	7.96	30.0	15.0	6.40	12.80
SDR1806-100M_	10.0	$\pm 20$	22	2.52	25.0	25.0	5.30	10.00
SDR1806-150M_	15.0	$\pm 20$	20	2.52	17.0	35.0	4.30	8.00
SDR1806-220M_	22.0	$\pm 20$	22	2.52	13.0	45.0	3.60	6.70
SDR1806-330M_	33.0	$\pm 20$	24	2.52	11.0	68.0	3.00	5.40
SDR1806-470M_	47.0	$\pm 20$	22	2.52	9.0	95.0	2.50	4.60
SDR1806-680M_	68.0	$\pm 20$	22	2.52	8.0	130.0	2.10	3.80
SDR1806-101K_	100.0	$\pm 10$	25	0.796	7.0	190.0	1.70	3.20
SDR1806-151K_	150.0	$\pm 10$	23	0.796	5.0	270.0	1.40	2.60
SDR1806-221K_	220.0	$\pm 10$	20	0.796	4.5	420.0	1.10	2.20
SDR1806-331K_	330.0	$\pm 10$	18	0.796	3.5	580.0	1.00	1.80
SDR1806-471K_	470.0	$\pm 10$	15	0.796	3.0	820.0	0.80	1.50
SDR1806-681K_	680.0	$\pm 10$	12	0.796	2.5	1200.0	0.70	1.20
SDR1806-102K_	1000.0	$\pm 10$	10	0.252	2.0	1800.0	0.50	1.00

### Electrical Schematic



### How to Order

**SDR1806 - 100M**

Model \_\_\_\_\_

Value/Tolerance: from table \_\_\_\_\_

Termination \_\_\_\_\_

L = Cu/Ni/Sn  
Blank = Cu/Ni/SnPb

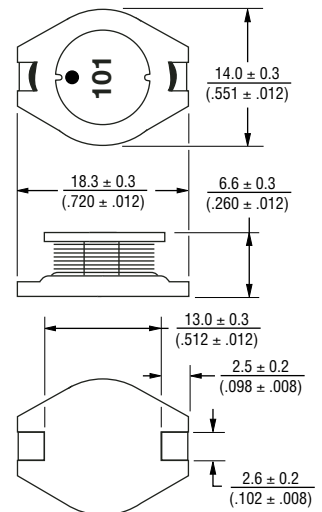
### General Specifications

Test Voltage .....0.1 V  
 Reflow soldering.....230 °C; 10 sec max.  
 Operating Temperature ..-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature..-40 °C to +125 °C  
 Resistance to Soldering Heat  
 .....230 °C for 10 sec.

### Materials

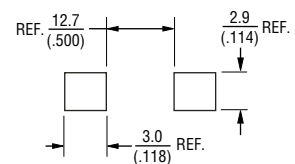
Core.....Ferrite DR  
 Wire .....Enameled copper  
 Base .....LCP E4008  
 Terminal Electrode.....See How to Order  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise .....40 °C max.  
 at rated I rms  
 Packaging.....250 pcs. per reel

### Product Dimensions



● = START OF WINDING

### Recommended Layout



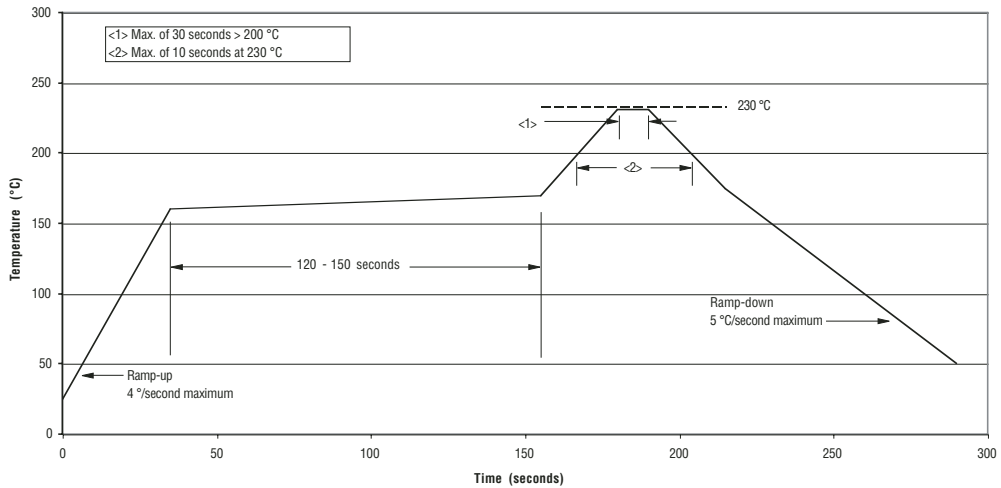
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

\*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.

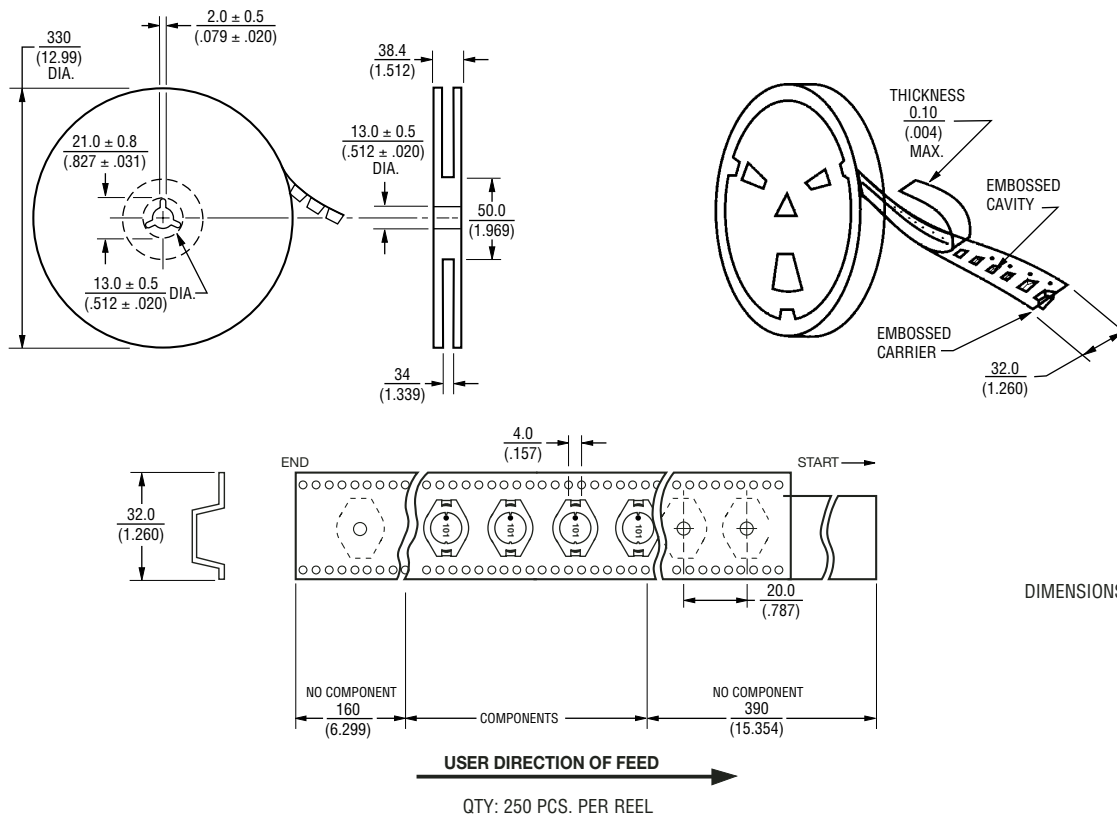
# SDR1806 Series - SMD Power Inductor

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 02/05

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Customers should verify actual device performance in their specific applications.