



## Features

- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1  $\mu$ H
- RoHS compliant\*

## Applications

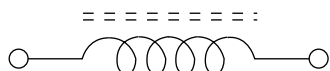
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communications equipment
  - Camcorders
  - LCD TVs

# SDR1806 Series - SMD Power Inductors

## Electrical Specifications

Bourns Part Number	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC Max. (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR1806-1R0ML	1	$\pm 20$	21	7.96	100.0	4.0	10.0	30.00
SDR1806-2R2ML	2.2	$\pm 20$	22	7.96	55.0	6.8	9.00	22.00
SDR1806-3R3ML	3.3	$\pm 20$	22	7.96	40.0	9.8	7.60	17.00
SDR1806-5R6ML	5.6	$\pm 20$	23	7.96	30.0	15.0	6.40	12.80
SDR1806-8R2ML	8.2	$\pm 20$	22	7.96	27.0	20.0	7.00	9.40
SDR1806-100ML	10.0	$\pm 20$	22	2.52	25.0	25.0	5.30	10.00
SDR1806-150ML	15.0	$\pm 20$	20	2.52	17.0	35.0	4.30	8.00
SDR1806-220ML	22.0	$\pm 20$	22	2.52	13.0	45.0	3.60	6.70
SDR1806-330ML	33.0	$\pm 20$	24	2.52	11.0	68.0	3.00	5.40
SDR1806-470ML	47.0	$\pm 20$	22	2.52	9.0	95.0	2.50	4.60
SDR1806-680ML	68.0	$\pm 20$	22	2.52	8.0	130.0	2.10	3.80
SDR1806-101KL	100.0	$\pm 10$	25	0.796	7.0	190.0	1.70	3.20
SDR1806-151KL	150.0	$\pm 10$	23	0.796	5.0	270.0	1.40	2.60
SDR1806-221KL	220.0	$\pm 10$	20	0.796	4.5	420.0	1.10	2.20
SDR1806-331KL	330.0	$\pm 10$	18	0.796	3.5	580.0	1.00	1.80
SDR1806-471KL	470.0	$\pm 10$	15	0.796	3.0	820.0	0.80	1.50
SDR1806-681KL	680.0	$\pm 10$	12	0.796	2.5	1200.0	0.70	1.20
SDR1806-102KL	1000.0	$\pm 10$	10	0.252	2.0	1800.0	0.50	1.00

## Electrical Schematic



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**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. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

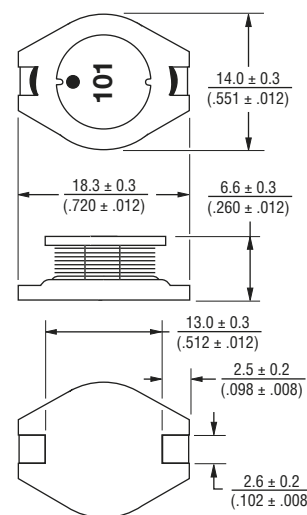
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow Soldering ... 230 °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  
 ..... 260 °C, 10 sec. max.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

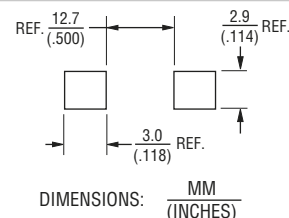
## Materials

Core ..... Ferrite DR  
 Wire ..... Enamelled copper  
 Base ..... LCP E4008  
 Terminal..... Cu/Sn  
 Rated Current  
 ..... Ind. drop 10 % typ. at Isat  
 Temperature Rise  
 ..... 40 °C max. at rated I rms  
 Packaging..... 250 pcs. per reel

## Product Dimensions



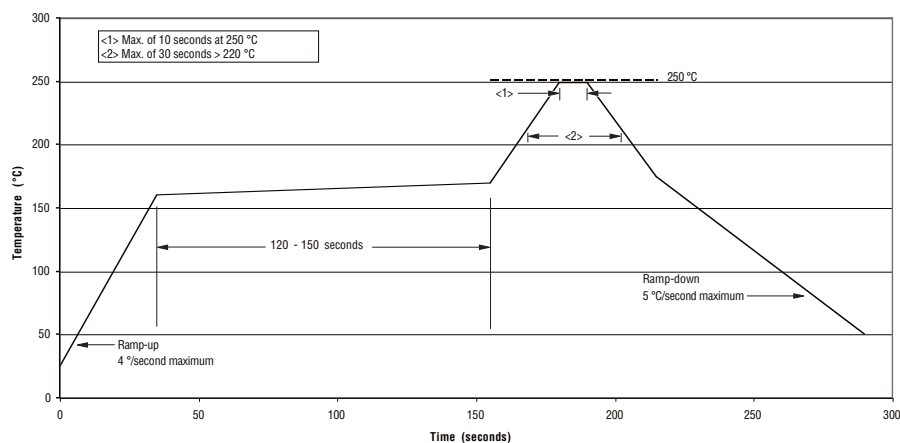
## Recommended Layout



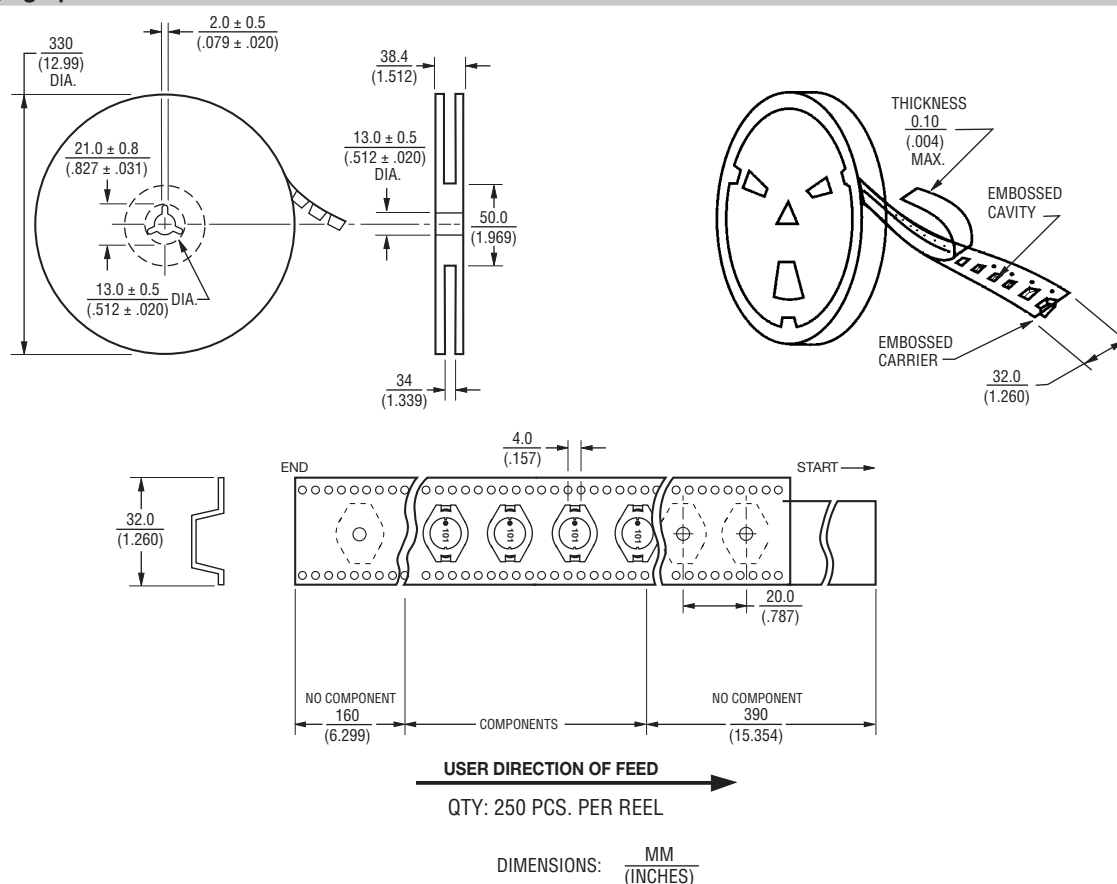
# SDR1806 Series - SMD Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 03/18

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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