



**THE DATASHEET OF  
SDR1806-8R2ML**





## 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

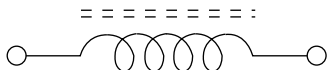
### General Specifications

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

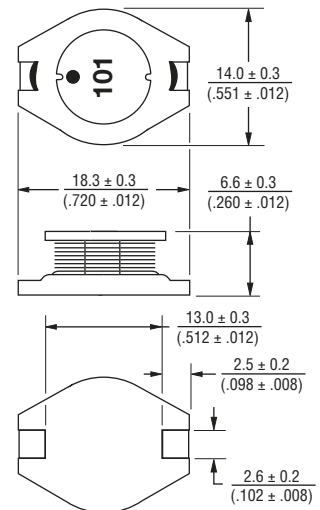
### Materials

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

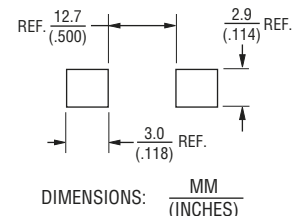
### Electrical Schematic



### Product Dimensions



### Recommended Layout



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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.  
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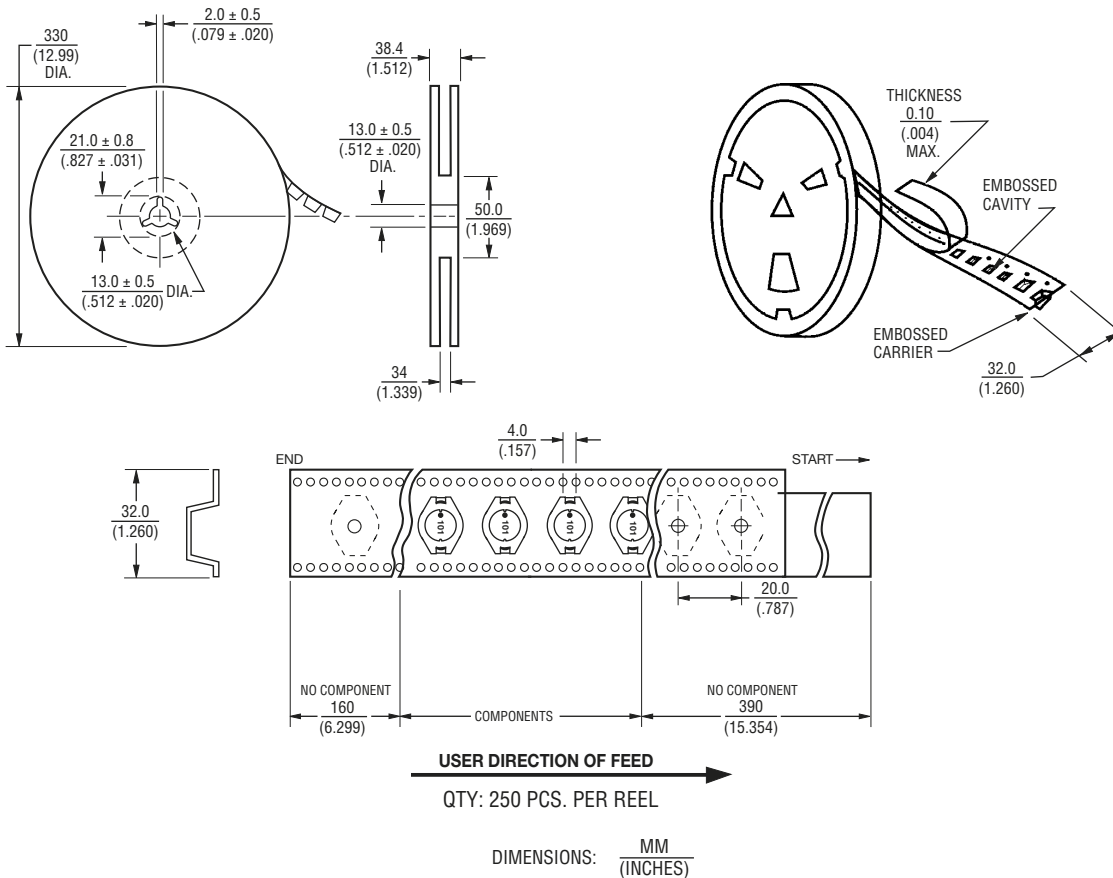
# SDR1806 Series - SMD Power Inductors

**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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