



## 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

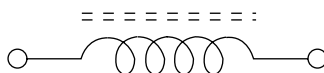
Bourns Part Number	Inductance 100 kHz		Q Ref.	Test Frequency (MHz)	SRF Typ. (MHz)	RDC Max. (m $\Omega$ )	I rms Max. (A)	I sat Typ. (A)
	( $\mu$ H)	Tol. %						
SDR1806-1R0ML	1	$\pm 20$	21	7.96	100.0	4.0	10.0	30.00
SDR1806-2R2ML	2.2	$\pm 20$	22	7.96	55.0	6.8	9.00	22.00
SDR1806-3R3ML	3.3	$\pm 20$	22	7.96	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	6.00	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

### Additional Information

Click these links for more information:



### Electrical Schematic



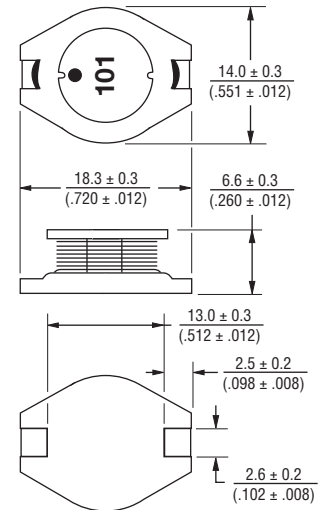
### General Specifications

Test Voltage ..... 0.1 V  
 Operating Temperature ..... -40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature.. -40 °C to +125 °C  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM).....N/A

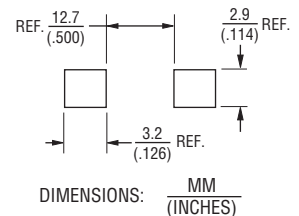
### Materials

Core ..... Ferrite DR  
 Wire ..... Enamelled copper  
 Base ..... LCP E4008  
 Terminal Finish ..... 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



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant.  
 See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

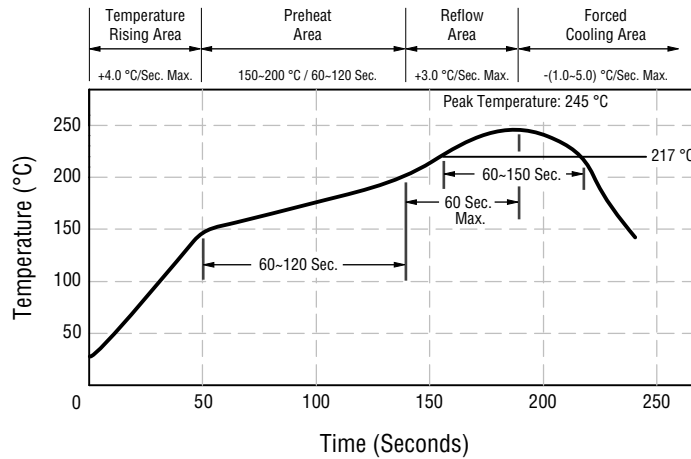
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# SDR1806 Series - SMD Power Inductors

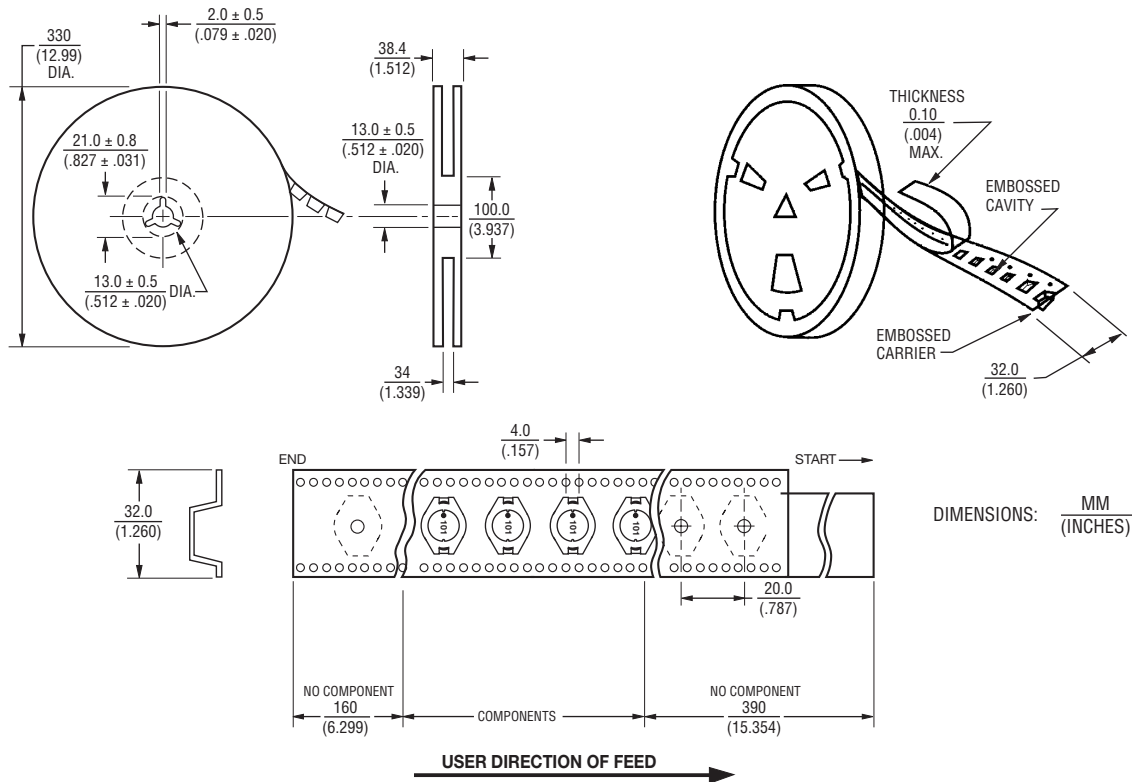
**BOURNS®**

## Soldering Profile

Peak Temperature: 245 °C max.  
 Max. Peak Temperature -5 °C: 30 sec. max.  
 Max. Time Above 217 °C: 60-150 sec. max.



## Packaging Specifications



REV. 11/25

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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QTY: 250 PCS. PER REEL

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