

#### **Features**

- Available in E6 series
- Low profile of only 6.6 mm
- Inductance as low as 1 µH
- 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**

_	Inductance 100 kHz			Test	SRF	RDC	Irms	I sat
Bourns Part Number	(μH)	Tol. %	Q Ref.	Frequency (MHz)	Typ. (MHz)	Max. (mΩ)	Max. (A)	Тур. (A)
SDR1806-1R0ML	1	± 20	21	7.96	100.0	4.0	10.0	30.00
SDR1806-2R2ML	2.2	± 20	22	7.96	55.0	6.8	9.00	22.00
SDR1806-3R3ML	3.3	± 20	22	7.96	40.0	9.8	7.60	17.00
SDR1806-5R6ML	5.6	± 20	23	7.96	30.0	15.0	6.40	12.80
SDR1806-8R2ML	8.2	± 20	22	7.96	27.0	20.0	6.00	9.40
SDR1806-100ML	10.0	± 20	22	2.52	25.0	25.0	5.30	10.00
SDR1806-150ML	15.0	± 20	20	2.52	17.0	35.0	4.30	8.00
SDR1806-220ML	22.0	± 20	22	2.52	13.0	45.0	3.60	6.70
SDR1806-330ML	33.0	± 20	24	2.52	11.0	68.0	3.00	5.40
SDR1806-470ML	47.0	± 20	22	2.52	9.0	95.0	2.50	4.60
SDR1806-680ML	68.0	± 20	22	2.52	8.0	130.0	2.10	3.80
SDR1806-101KL	100.0	± 10	25	0.796	7.0	190.0	1.70	3.20
SDR1806-151KL	150.0	± 10	23	0.796	5.0	270.0	1.40	2.60
SDR1806-221KL	220.0	± 10	20	0.796	4.5	420.0	1.10	2.20
SDR1806-331KL	330.0	± 10	18	0.796	3.5	580.0	1.00	1.80
SDR1806-471KL	470.0	± 10	15	0.796	3.0	820.0	0.80	1.50
SDR1806-681KL	680.0	± 10	12	0.796	2.5	1200.0	0.70	1.20
SDR1806-102KL	1000.0	± 10	10	0.252	2.0	1800.0	0.50	1.00

#### **Additional Information**

Click these links for more information:





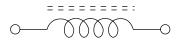








#### **Electrical Schematic**



### **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

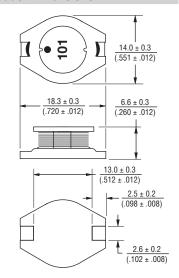
#### **Materials**

Core ......Ferrite DR Wire ......Enamelled copper Base ..... LCP E4008 Terminal Finish ......Sn Rated Current .....Ind. drop 10 % typ. at Isat

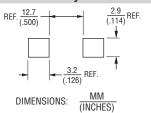
Temperature Rise .....40 °C max. at rated Irms

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

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.

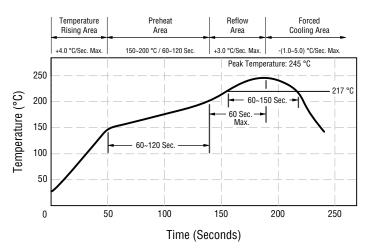
Users should verify actual device performance in their specific applications.

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

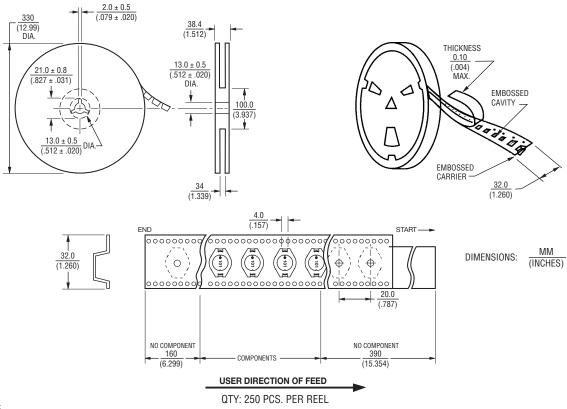
# **SDR1806 Series - SMD Power Inductors**

#### **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.

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