



## Features

- Available in E12 series
- Unit height of 6.8 mm
- Current up to 8 A Isat
- RoHS compliant\*

## Applications

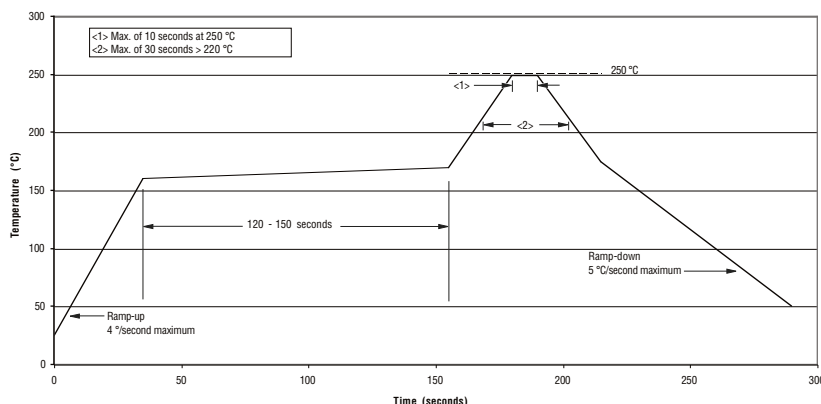
- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

# SRR1806 Series - Shielded Power Inductors

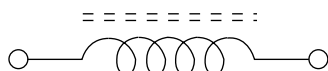
## Electrical Characteristics

| Bourns<br>Part Number | Inductance<br>100 kHz |        | Q<br>Ref. | Test<br>Frequency<br>(MHz) | SRF<br>Typ.<br>(MHz) | RDC<br>±20 %<br>(Ω) | I rms<br>Max.<br>(A) | I sat<br>Typ.<br>(A) |
|-----------------------|-----------------------|--------|-----------|----------------------------|----------------------|---------------------|----------------------|----------------------|
|                       | (μH)                  | Tol. % |           |                            |                      |                     |                      |                      |
| SRR1806-100M          | 10.0                  | ± 20   | 56        | 2.52                       | 19.0                 | 0.033               | 4.00                 | 8.20                 |
| SRR1806-150M          | 15.0                  | ± 20   | 53        | 2.52                       | 17.5                 | 0.039               | 3.60                 | 7.20                 |
| SRR1806-220M          | 22.0                  | ± 20   | 51        | 2.52                       | 16.0                 | 0.053               | 3.00                 | 6.20                 |
| SRR1806-330M          | 33.0                  | ± 20   | 44        | 2.52                       | 10.0                 | 0.083               | 2.50                 | 5.00                 |
| SRR1806-470M          | 47.0                  | ± 20   | 40        | 2.52                       | 8.0                  | 0.110               | 2.00                 | 4.20                 |
| SRR1806-680M          | 68.0                  | ± 20   | 37        | 2.52                       | 6.0                  | 0.170               | 1.60                 | 3.40                 |
| SRR1806-101M          | 100.0                 | ± 20   | 40        | 0.796                      | 4.6                  | 0.270               | 1.30                 | 2.60                 |
| SRR1806-151M          | 150.0                 | ± 20   | 39        | 0.796                      | 4.3                  | 0.400               | 1.05                 | 2.30                 |
| SRR1806-221M          | 220.0                 | ± 20   | 29        | 0.796                      | 3.5                  | 0.510               | 1.00                 | 1.90                 |
| SRR1806-331M          | 330.0                 | ± 20   | 30        | 0.796                      | 3.0                  | 0.790               | 0.80                 | 1.40                 |
| SRR1806-471M          | 470.0                 | ± 20   | 27        | 0.796                      | 2.4                  | 1.000               | 0.64                 | 1.30                 |
| SRR1806-681M          | 680.0                 | ± 20   | 19        | 0.796                      | 2.1                  | 1.470               | 0.54                 | 1.10                 |
| SRR1806-102M          | 1000.0                | ± 20   | 46        | 0.796                      | 1.5                  | 2.160               | 0.45                 | 0.90                 |

## Soldering Profile



## Schematic



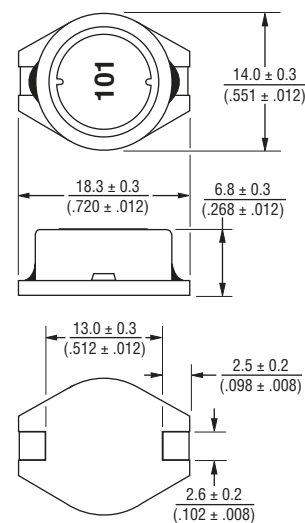
## General Specifications

Test Voltage ..... 0.1 V  
 Reflow soldering.....250 °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 -45 °C to +125 °C  
 Resistance to Soldering Heat  
 .....250 °C, 10 sec. max.  
 Moisture Sensitivity Level..... 1  
 ESD Classification (HBM)..... N/A

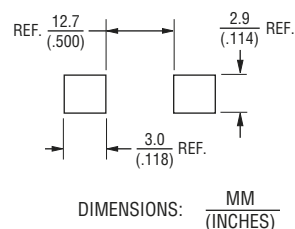
## Materials

Core..... Ferrite core  
 Wire ..... Enameled copper  
 Base ..... LCP E4008  
 Terminal..... Cu/Ni/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



**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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Technical drawing of a 32mm diameter metal blank with embossed features. The drawing includes a top view, a side view, and a cross-sectional view. The top view shows a circular blank with a central hole and four rectangular slots. The side view shows the thickness of the blank. The cross-sectional view shows the embossed carrier and the embossed cavity. Dimensions are given in both millimeters and inches.

**Top View Dimensions:**

- Outer Diameter:  $32.0 \pm 0.5$  (12.99) DIA.
- Inner Diameter:  $13.0 \pm 0.5$  (.512 .020) DIA.
- Slot Width:  $4.0$  (.157)
- Slot Depth:  $21.0 \pm 0.8$  (.827  $\pm$  .031)

**Side View Dimensions:**

- Thickness:  $0.10$  (.004) MAX.
- Embossed Carrier:  $32.0$  (1.260)
- Embossed Cavity:  $32.0$  (1.260)

**Cross-sectional View Dimensions:**

- End:  $160$  (6.299) NO COMPONENT
- Components:  $390$  (15.354) NO COMPONENT
- Start:  $20.0$  (.787)

**USER DIRECTION OF FEED** →

**QTY: 250 PCS. PER REEL**

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

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