



### Features

- Shielded construction
- Iron powder core
- High saturation current
- Inductance range: 0.56 to 47  $\mu$ H
- Rated current up to 18 A
- RoHS compliant\* and halogen free\*\*

### Applications

- DC/DC converters
- Power supplies for:
  - Portable communications equipment
  - Laptop computers
  - Camcorders, HDTV
  - Video game consoles

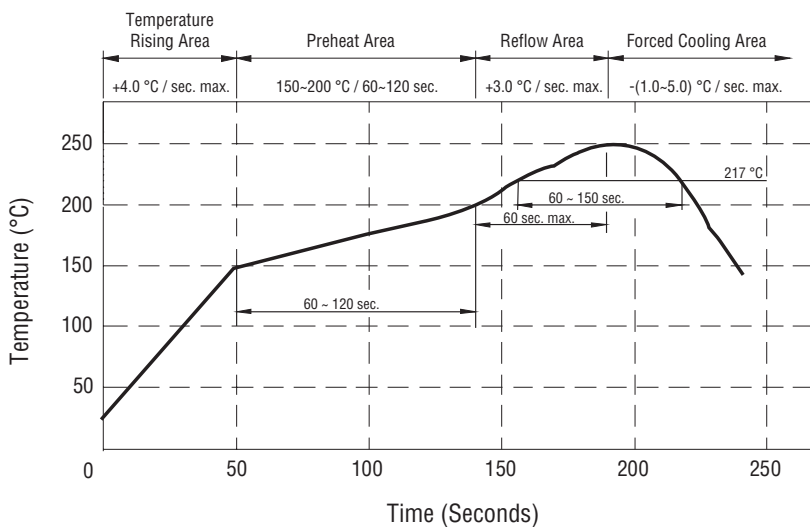
## SRP6540 Series - Shielded Power Inductors

### Electrical Specifications

| Bourns Part No. | Inductance L ( $\mu$ H) $\pm 20\%$ | DCR ( $m\Omega$ ) Max. | I rms (A) | I sat (A) |
|-----------------|------------------------------------|------------------------|-----------|-----------|
| SRP6540-R56M    | 0.56                               | 4.4                    | 18        | 18        |
| SRP6540-R68M    | 0.68                               | 5.0                    | 16.5      | 17        |
| SRP6540-R82M    | 0.82                               | 5.5                    | 15        | 15        |
| SRP6540-1R0M    | 1.0                                | 7.2                    | 12        | 13.5      |
| SRP6540-1R5M    | 1.5                                | 10.0                   | 11        | 11        |
| SRP6540-2R2M    | 2.2                                | 15.5                   | 9         | 9         |
| SRP6540-3R3M    | 3.3                                | 23.0                   | 6.5       | 7         |
| SRP6540-4R7M    | 4.7                                | 33.5                   | 6         | 6.5       |
| SRP6540-5R6M    | 5.6                                | 38.0                   | 5.5       | 6         |
| SRP6540-6R8M    | 6.8                                | 49.5                   | 5         | 5.5       |
| SRP6540-8R2M    | 8.2                                | 50.5                   | 4.5       | 5         |
| SRP6540-100M    | 10                                 | 78.5                   | 4         | 4         |
| SRP6540-150M    | 15                                 | 121                    | 2.9       | 2.9       |
| SRP6540-220M    | 22                                 | 133                    | 2.5       | 2.5       |
| SRP6540-270M    | 27                                 | 290                    | 2         | 2         |
| SRP6540-390M    | 39                                 | 322                    | 1.8       | 1.8       |
| SRP6540-470M    | 47                                 | 366                    | 1.6       | 1.6       |

### Soldering Profile

Peak Temperature: 250 °C max.  
 Time Above 245 °C: 30 sec. max.  
 Time Above 217 °C: 60 ~ 150 sec. max.



### General Specifications

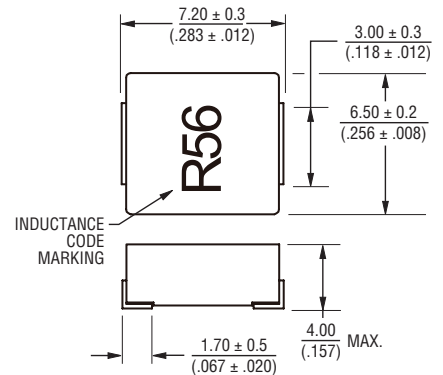
Test Voltage .....0.25 V  
 Test Frequency ..... 100 KHz  
 Operating Temperature .....-55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .....-55 °C to +125 °C  
 Resistance to Soldering Heat .....+250 °C for 10 sec.  
 Moisture Sensitivity Level .....3  
 ESD Classification (HBM)..... N/A

<sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

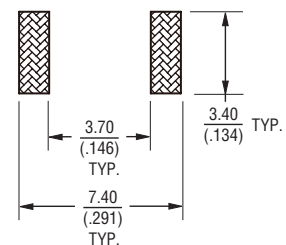
### Materials

Core ..... Iron powder  
 Wire ..... Enameled copper  
 Terminal ..... Cu/Ni/Sn  
 Rated Current ..... Ind. drops 20 % typ.  
 at Isat  
 Temperature Rise ..... 40 °C typ.  
 at rated I rms  
 Packaging ..... 1200 pcs. per 13-inch reel

### Product Dimensions



### Recommended Layout



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

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

\*\* Bourns follows the prevailing definition of "halogen free" in the industry. Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.

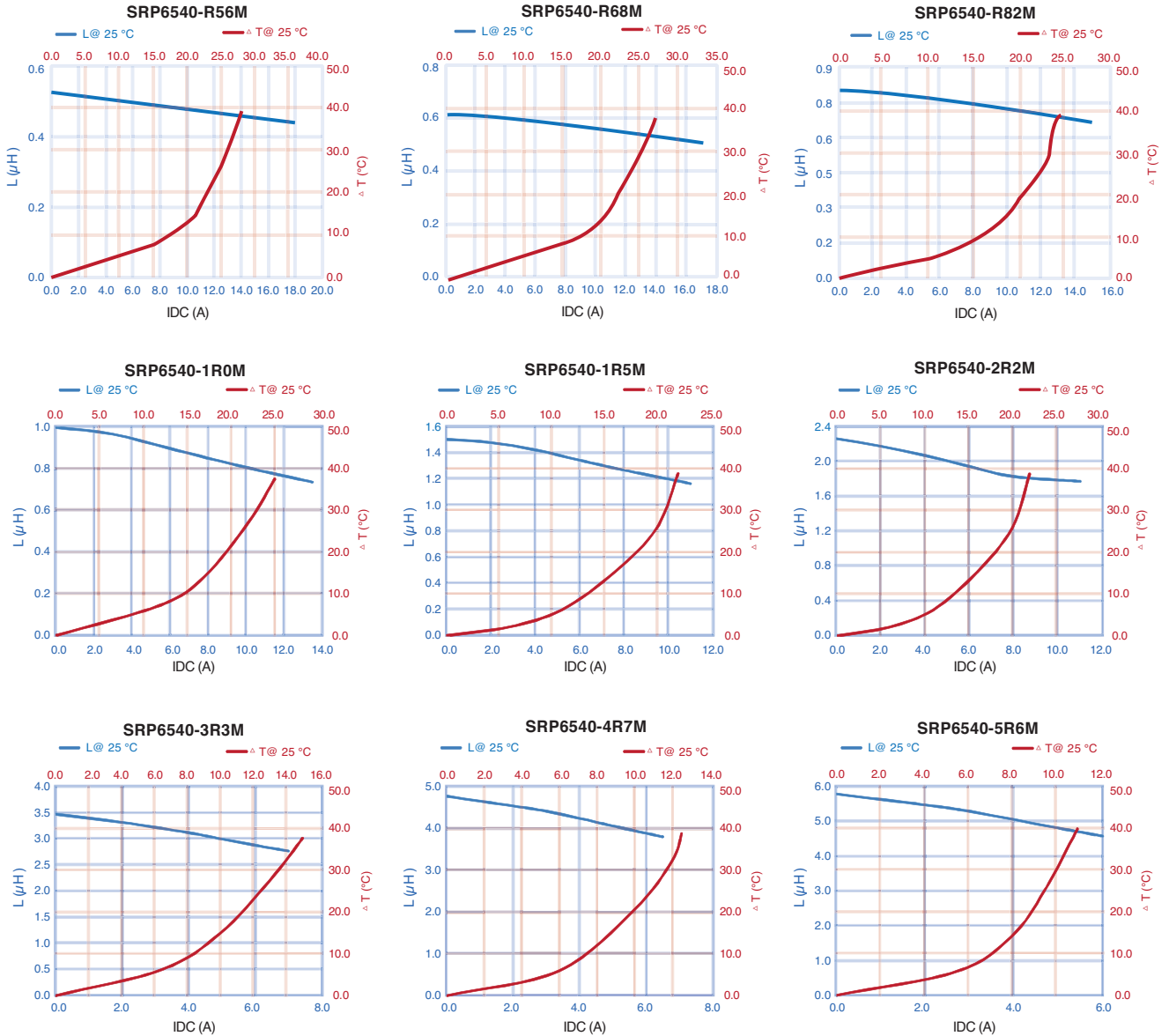
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

# SRP6540 Series - Shielded Power Inductors

**BOURNS®**

## L vs. I Charts



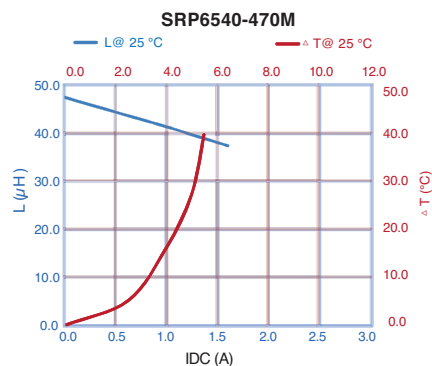
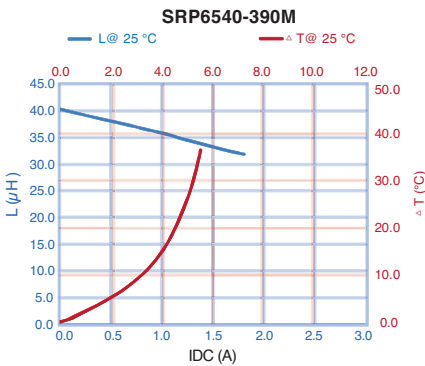
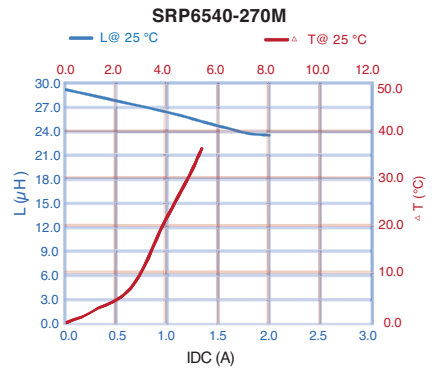
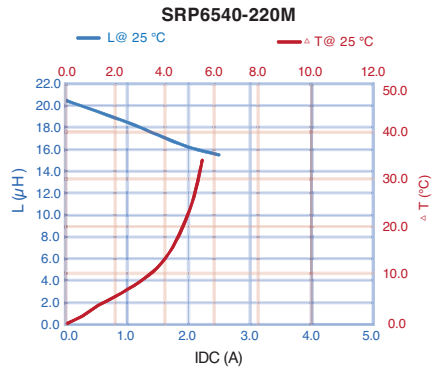
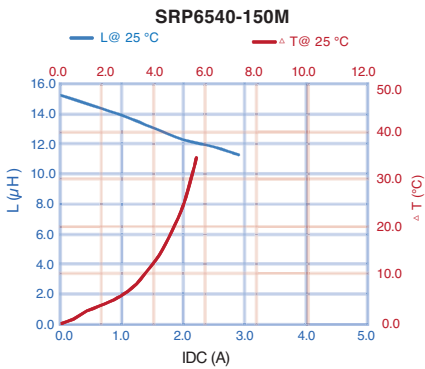
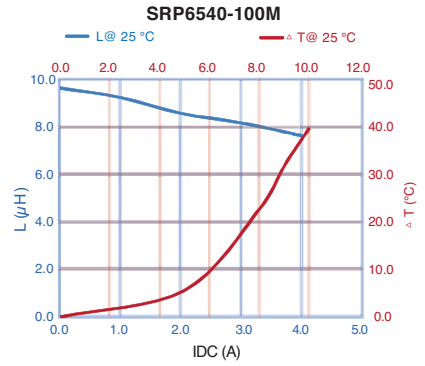
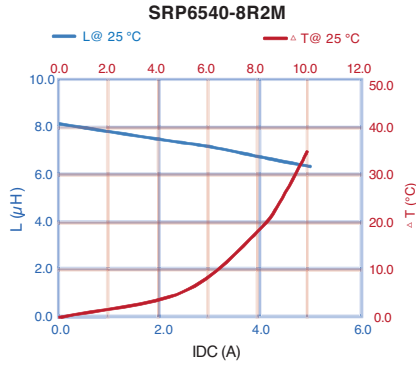
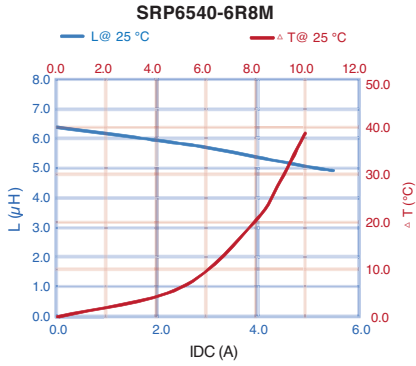
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

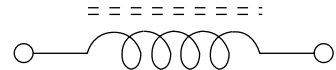
# SRP6540 Series - Shielded Power Inductors

**BOURNS®**

## L vs. I Charts



## Electrical Schematic



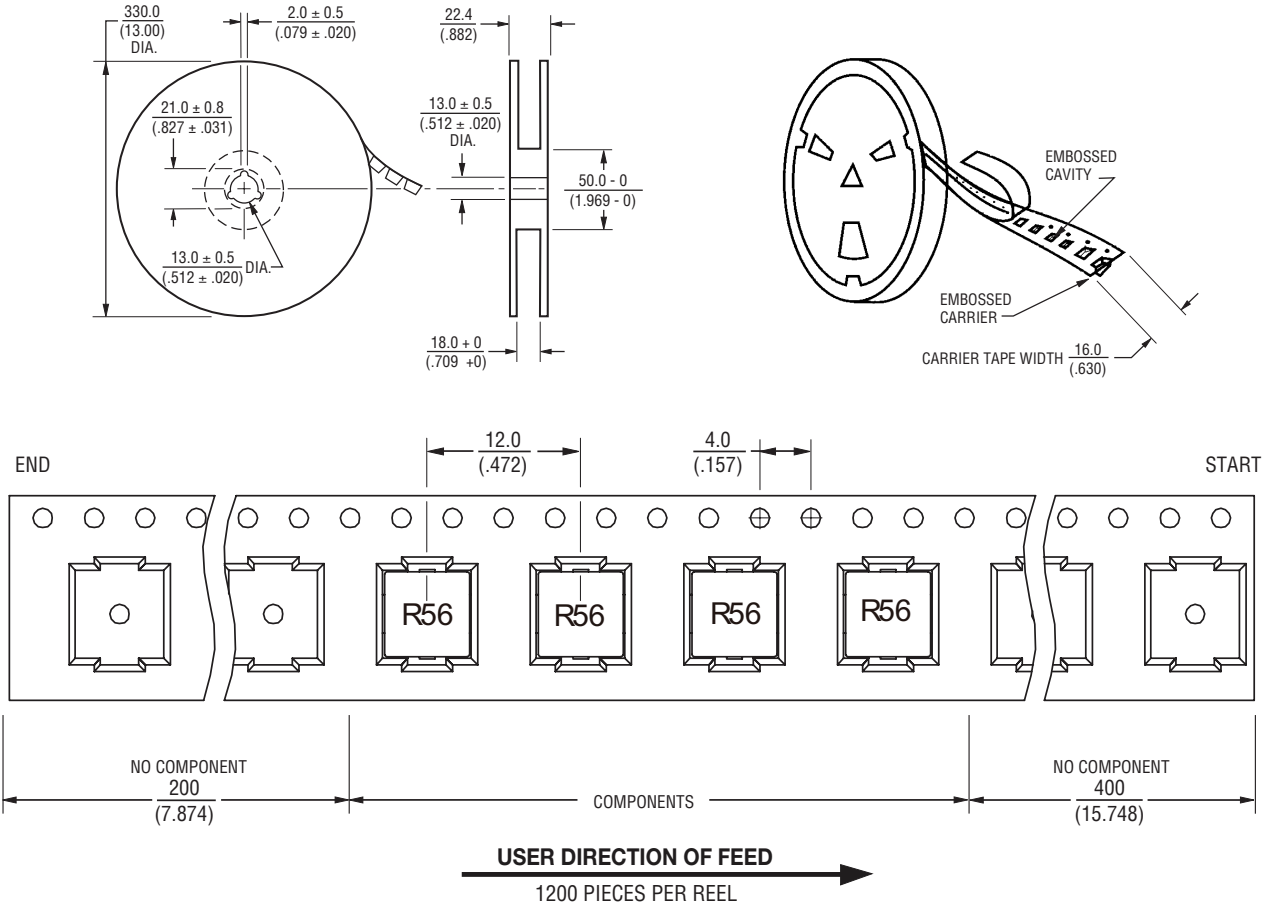
Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# SRP6540 Series - Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



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

REV. 03/18

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