



**THE DATASHEET OF  
SRP6540-R56M**





## 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

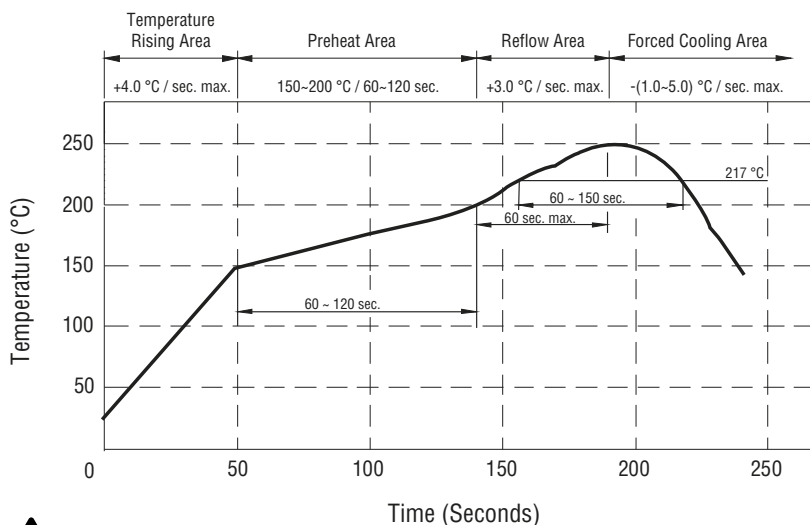
# SRP6540 Series - Shielded Power Inductors

## 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.



**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.  
 \*\*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. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf)

## General Specifications

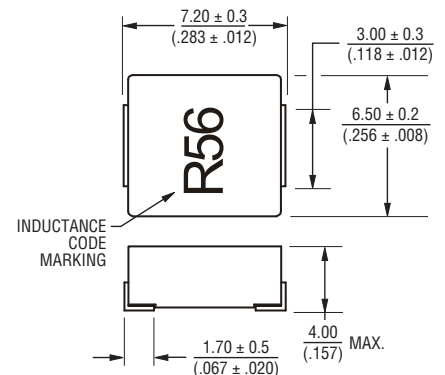
Test Voltage ..... 0.25 V  
 Test Frequency ..... 100 KHz  
 Operating Temperature ..... -55 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature ..... -55 °C to +125 °C  
 Resistance to Soldering Heat ..... +250 °C for 10 sec.  
 Moisture Sensitivity Level ..... 3  
 ESD Classification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

1 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.

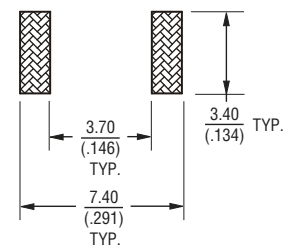
## Materials

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 Irms  
 Packaging ..... 1200 pcs. per 13-inch reel

## Product Dimensions



## Recommended Layout

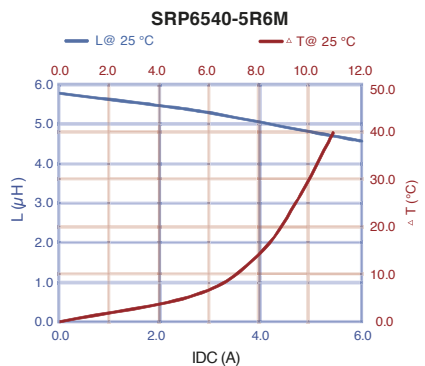
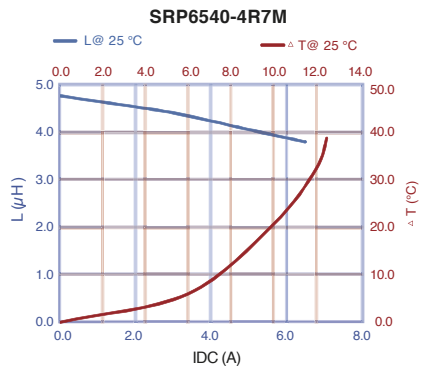
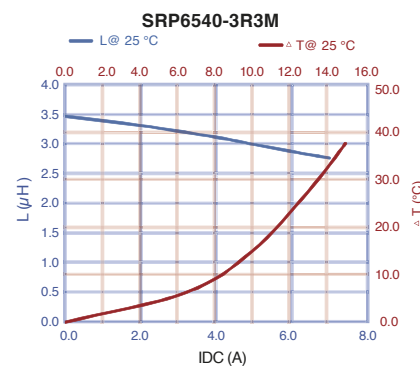
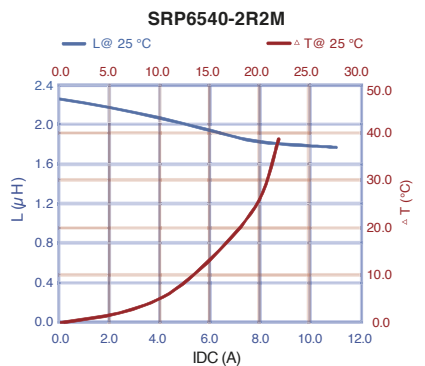
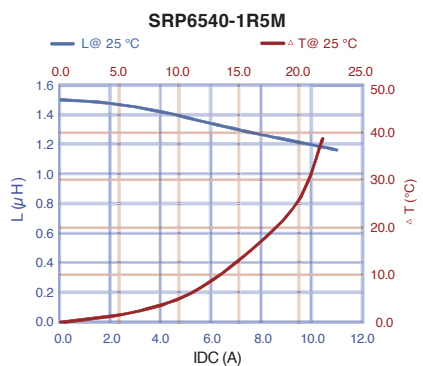
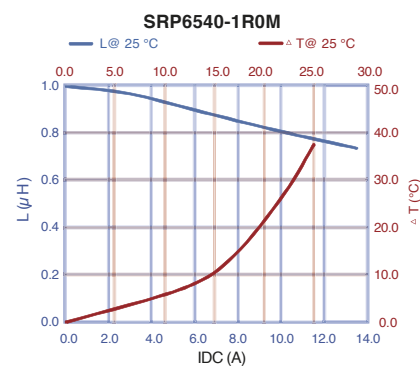
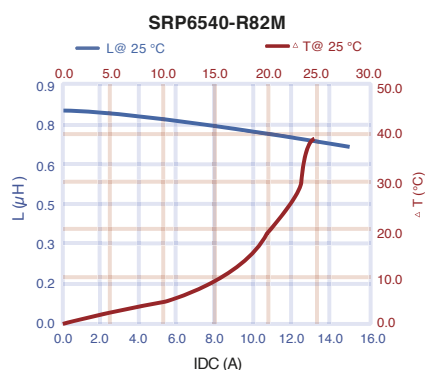
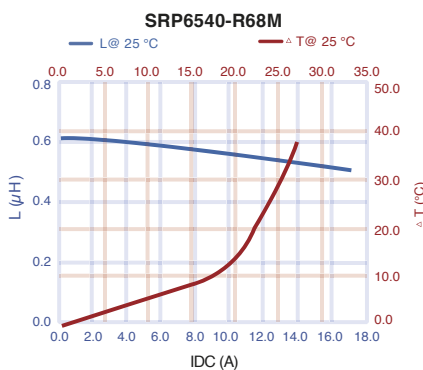
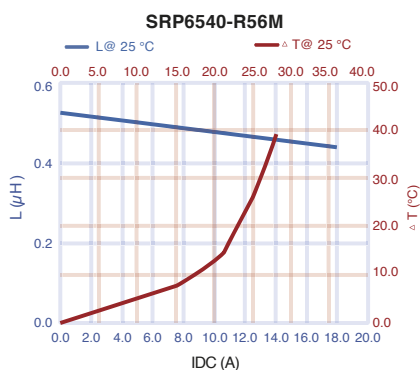


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

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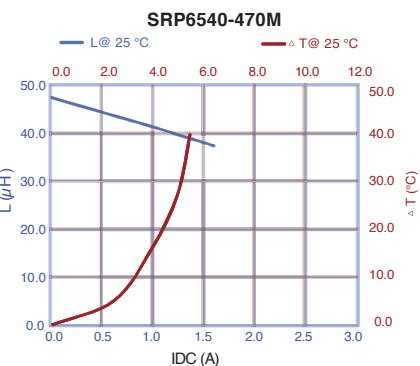
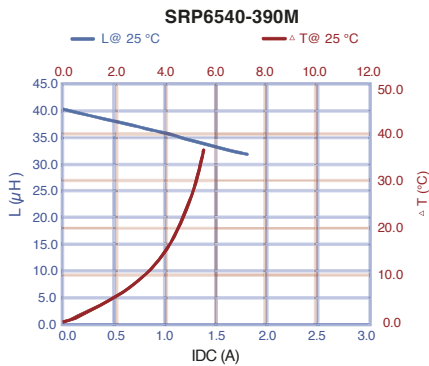
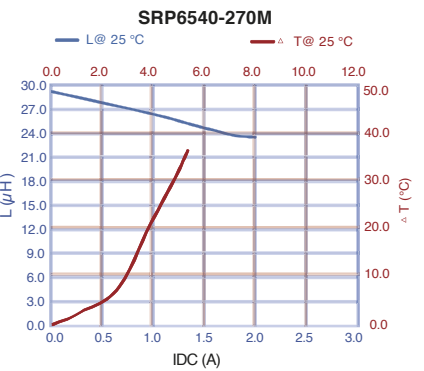
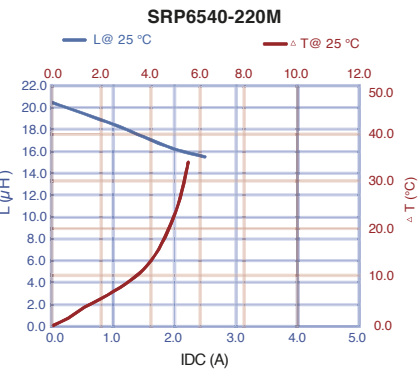
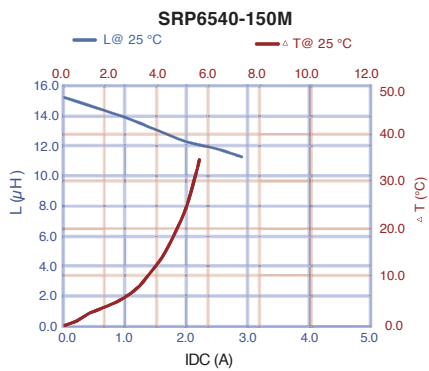
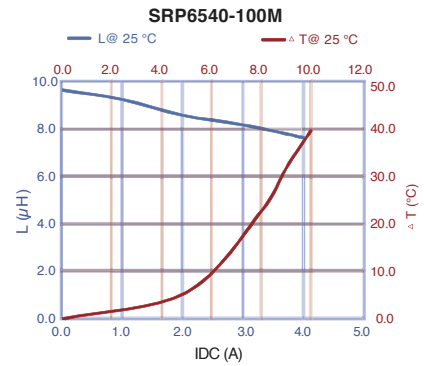
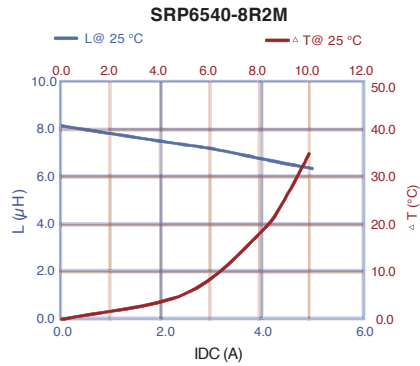
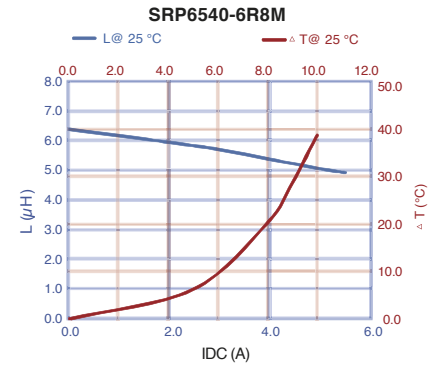
## L vs. I Charts



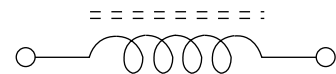
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## L vs. I Charts



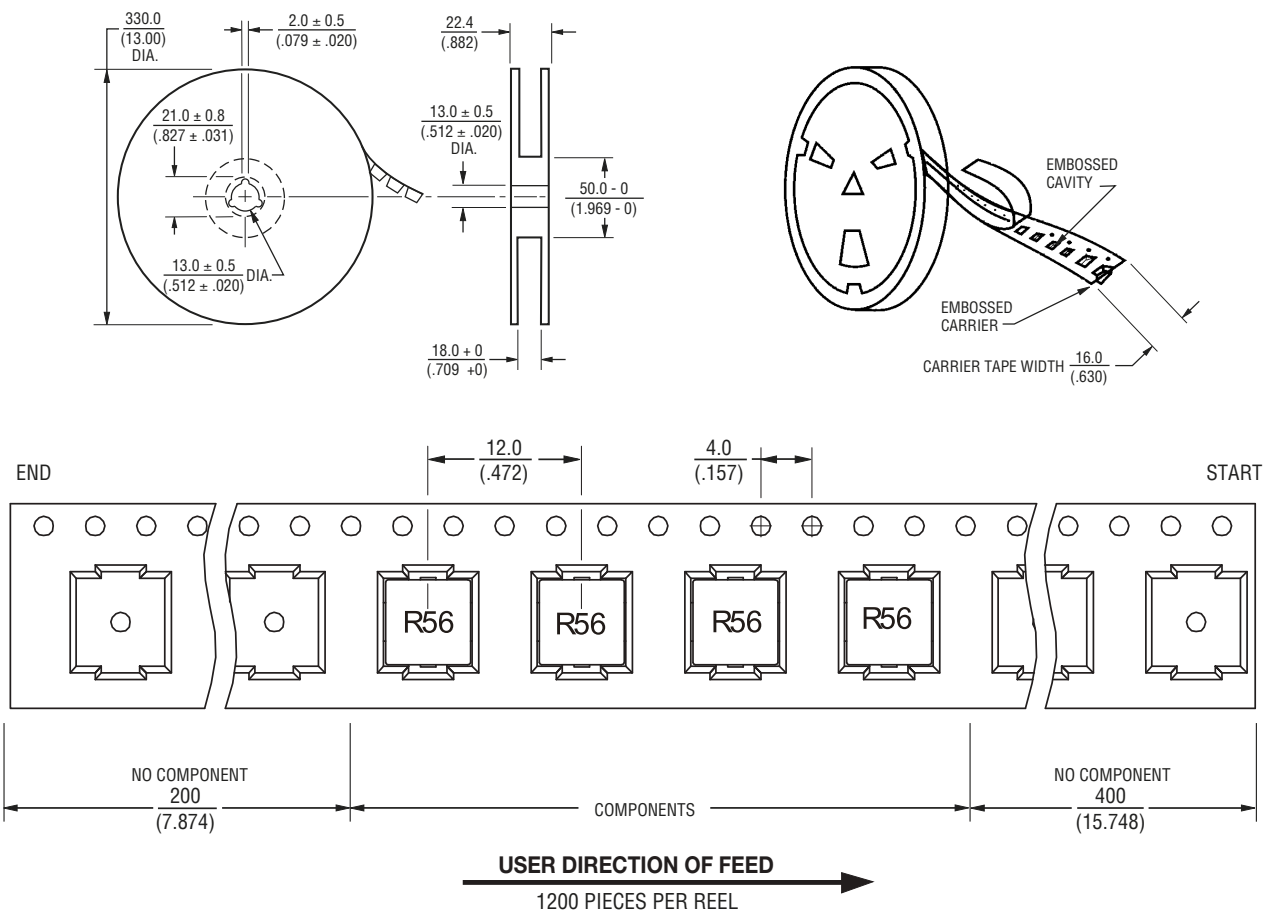
## Electrical Schematic



# SRP6540 Series - Shielded Power Inductors

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## Packaging Specifications



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

REV. 03/18

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