



Features

- Shielded construction
- Iron powder core
- High saturation current
- Inductance range: 0.56 to 47 μ 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

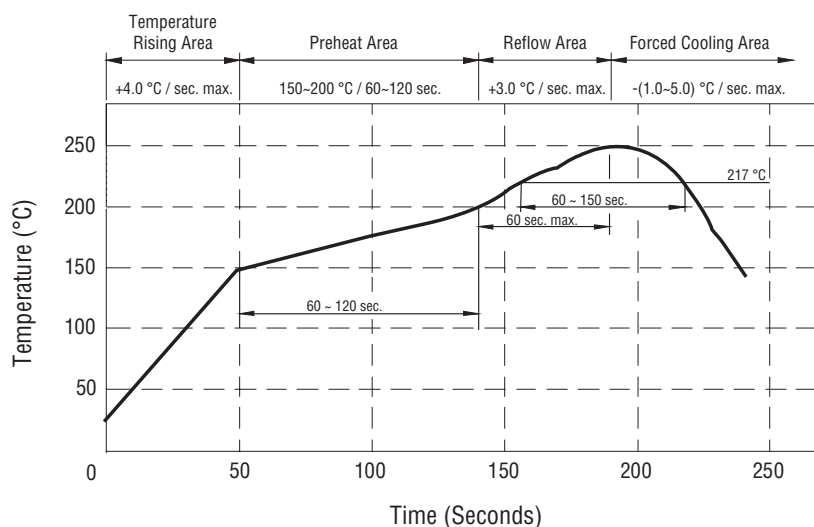
SRP6540 Series - Shielded Power Inductors

Electrical Specifications

Bourns Part No.	Inductance L (μ H) $\pm 20\%$	DCR (m Ω) 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

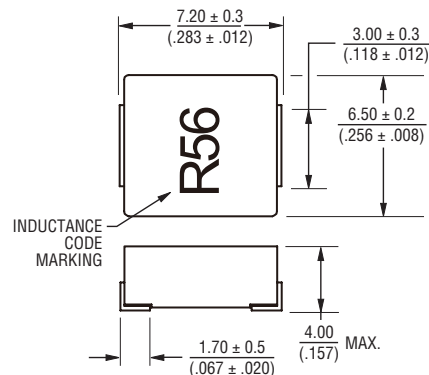
Test Voltage 0.25 V
 Test Frequency 100 KHz
 Operating Temperature -55 °C to +125 °C
 (Temperature rise included)
 Storage Temperature -55 °C to +125 °C
 Resistance to Soldering Heat +250 °C for 10 sec.
 Moisture Sensitivity Level 3
 ESD Classification (HBM) N/A

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.

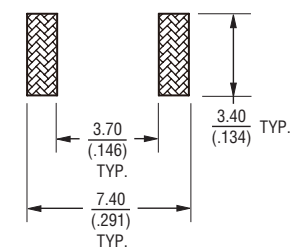
Materials

Core Iron powder
 Wire Enamelled 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.

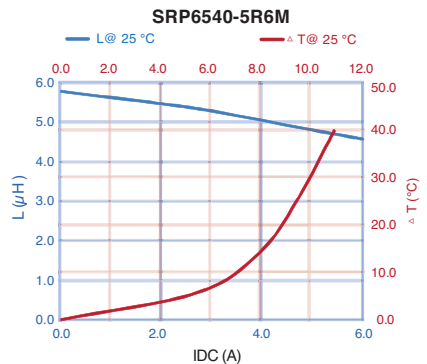
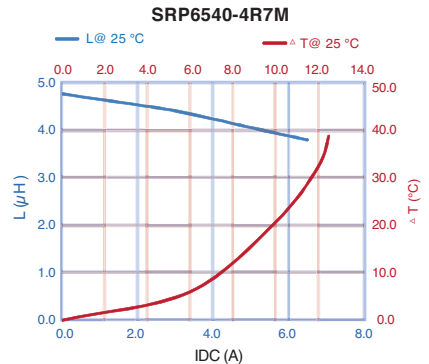
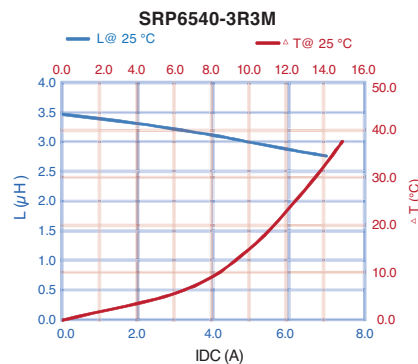
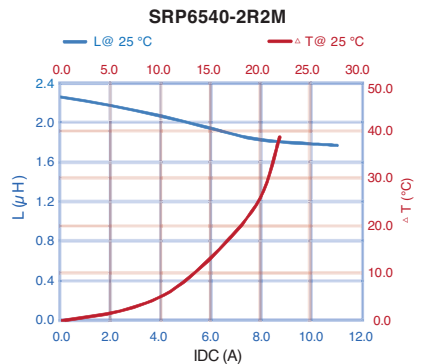
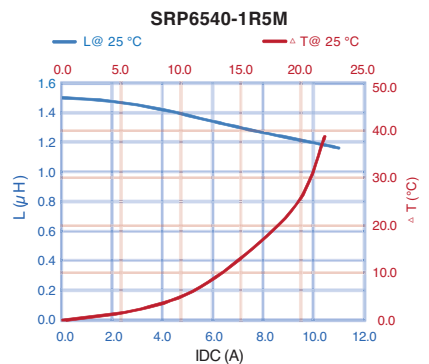
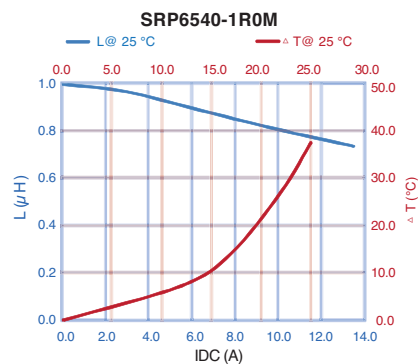
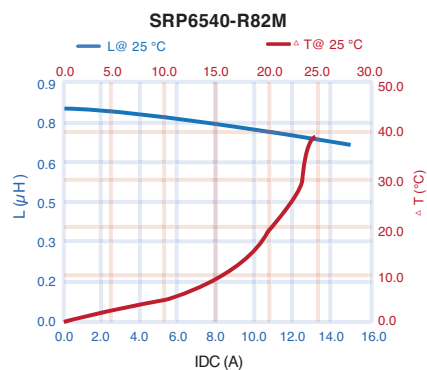
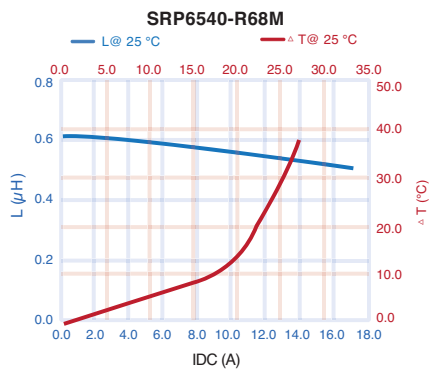
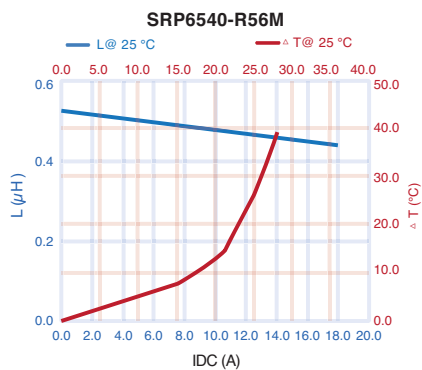
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

SRP6540 Series - Shielded Power Inductors

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L vs. I Charts



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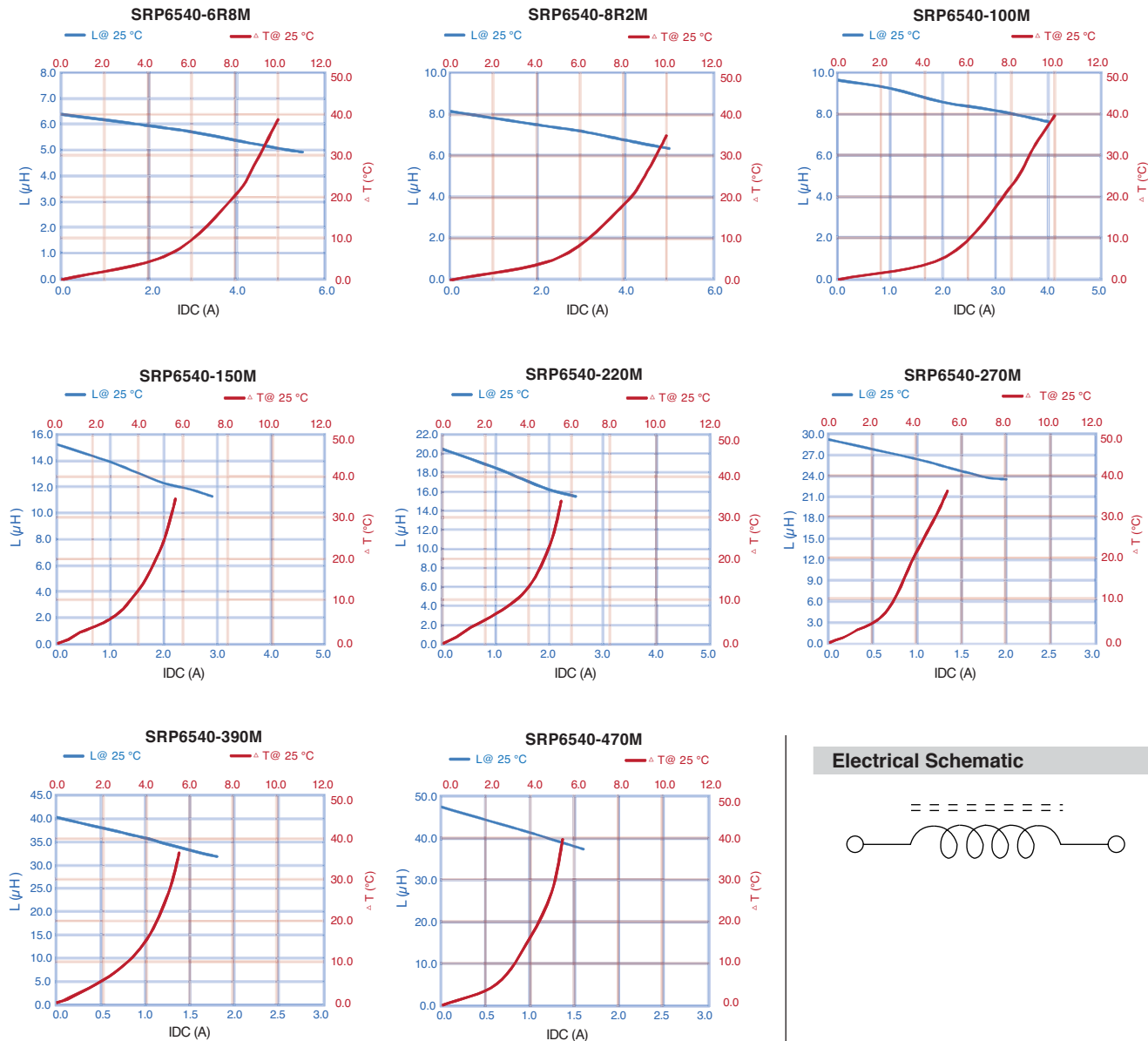
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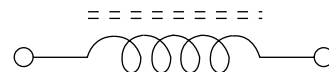
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Electrical Schematic



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Technical drawings of the 1000 Series 1/2" Dia. Coin, showing front, side, and detail views.

Front View:

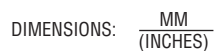
- Overall Diameter: 33.0 ± 0.0 (13.00) DIA.
- Inner Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.
- Inner Diameter Tolerance: 21.0 ± 0.8 (.827 $\pm$.031)

Side View:

- Overall Thickness: 2.0 ± 0.5 (.079 $\pm$.020)
- Inner Diameter: 13.0 ± 0.5 (.512 $\pm$.020) DIA.
- Inner Diameter Tolerance: 22.4 (.882)
- Inner Diameter Tolerance: $50.0 - 0$ (1.969 - 0)
- Inner Diameter Tolerance: $18.0 + 0$ (.709 + 0)

Detail View:

- EMBOSS CAVITY
- EMBOSS CARRIER
- CARRIER TAPE WIDTH: 16.0 (.630)



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