

• RoHS COMPLIANT  
• AEC-Q200 QUALIFIED



**BOURNS®**

### Features

- Multiple configurations: parallel, series, dual-inductor and transformer
- Magnetically shielded, low radiation
- Inductance range: 8.2 to 600  $\mu$ H
- Heating current up to 2.19 A
- AEC-Q200 qualified
- RoHS compliant\* and halogen free\*\*

### Applications

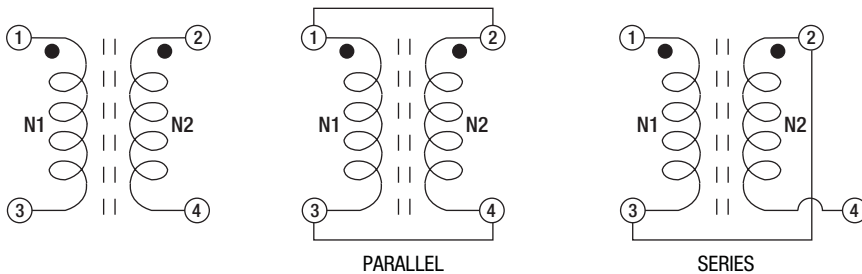
- Automotive systems:
  - Driver assistant
  - Information
  - Entertainment
  - Lighting
- DC/DC converters
- Power supplies
- SEPIC - DC/DC converters

## SRF0703A Series - Dual-Winding Shielded Power Inductors

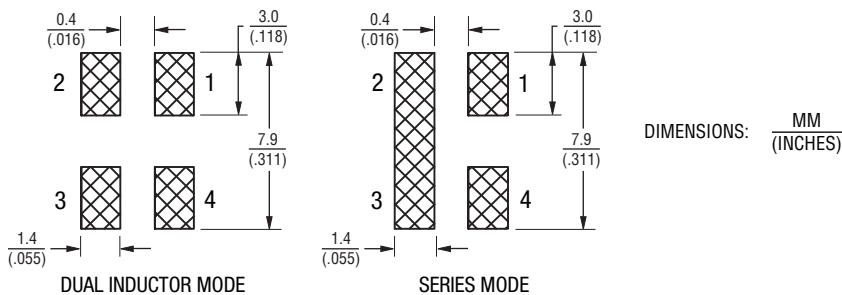
### Electrical Specifications @ 25 °C

Bourns Part No.	Parallel Rating				Series Rating			
	Inductance @ 100 kHz / 0.25 V L ( $\mu$ H) $\pm$ 20 %	DCR ( $\Omega$ ) Max.	I <sub>rms</sub> (A)	Isat (A)	Inductance @ 100 kHz / 0.25 V L ( $\mu$ H) $\pm$ 20 %	DCR ( $\Omega$ ) Max.	I <sub>rms</sub> (A)	Isat (A)
SRF0703A-8R2M	8.2	0.0772	2.19	2.66	32.8	0.306	1.1	1.33
SRF0703A-100M	10	0.0826	2.08	2.47	40	0.342	1.04	1.24
SRF0703A-150M	15	0.119	1.83	2.05	60	0.47	0.916	1.03
SRF0703A-220M	22	0.15	1.62	1.67	88	0.62	0.811	0.83
SRF0703A-330M	33	0.24	1.31	1.35	132	1.0	0.653	0.68
SRF0703A-470M	47	0.338	1.08	1.14	188	1.28	0.542	0.57
SRF0703A-680M	68	0.507	0.89	0.96	272	1.92	0.444	0.48
SRF0703A-820M	82	0.61	0.86	0.89	328	2.28	0.43	0.44
SRF0703A-101M	100	0.715	0.73	0.79	400	2.64	0.367	0.39
SRF0703A-151M	150	0.986	0.58	0.65	600	3.63	0.289	0.32

### Electrical Schematics



### Recommended Layout



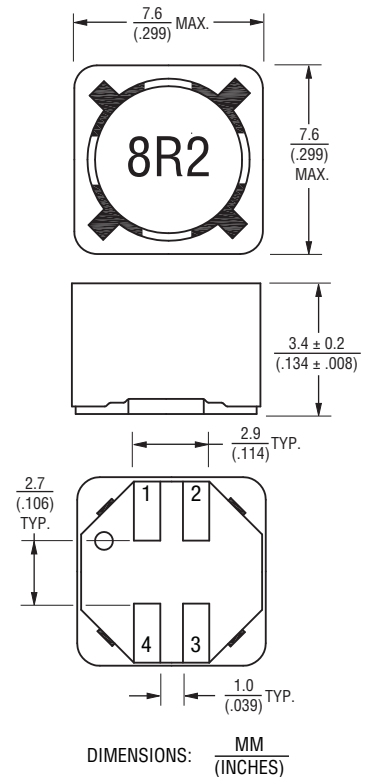
### General Specifications

Operating Temperature .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .....-40 °C to +125 °C  
 Resistance to Solder Heat .....+250 °C for 10 sec.  
 Temperature Rise .....40 °C typ. at rated I<sub>rms</sub>  
 Inductance Drop ..... 30 % typ. at Isat

### Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Finish ..... Sn  
 Packaging ..... 1500 pcs. per reel

### Product Dimensions



### How to Order

**SRF0703A - 100M**

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

EMEA: Tel: +36 88 520 390 • Fax: +36 88 520 211

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

[www.bourns.com](http://www.bourns.com)

\* 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.

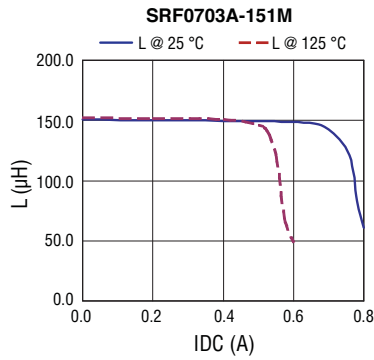
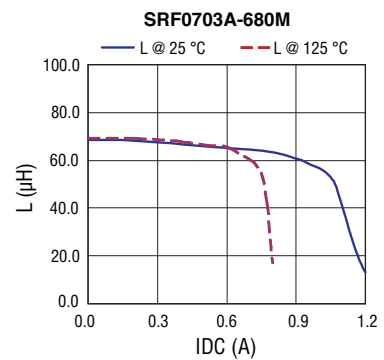
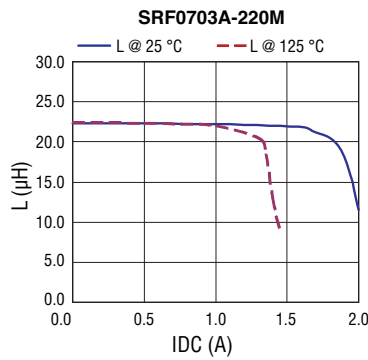
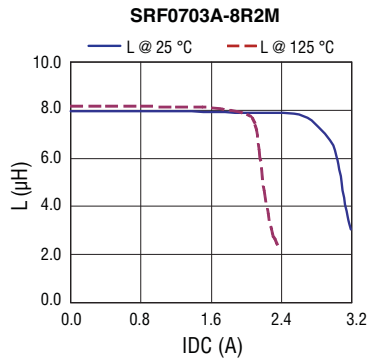
Specifications are subject to change without notice.

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.

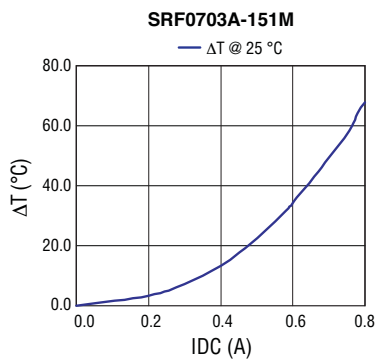
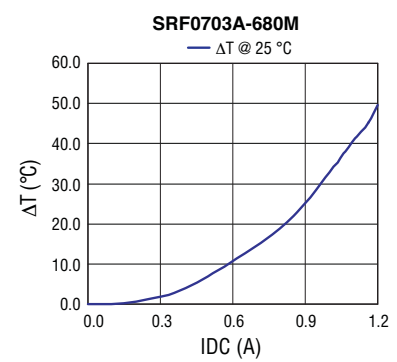
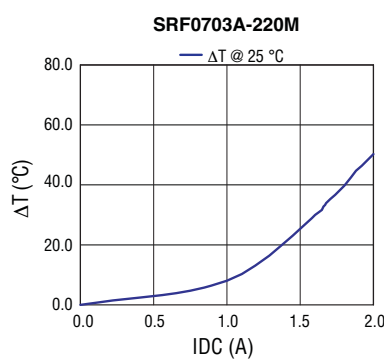
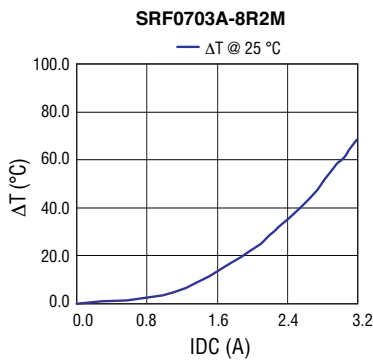
# SRF0703A Series - Dual-Winding Shielded Power Inductors



## Inductance vs. IDC



## Temperature Rise vs. IDC



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