



## Features

- Multiple applications: parallel, series, dual-inductor and transformer
- Magnetically shielded, low radiation
- Inductance range: 0.47 to 4000  $\mu$ H
- Rated current up to 17.9 A
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

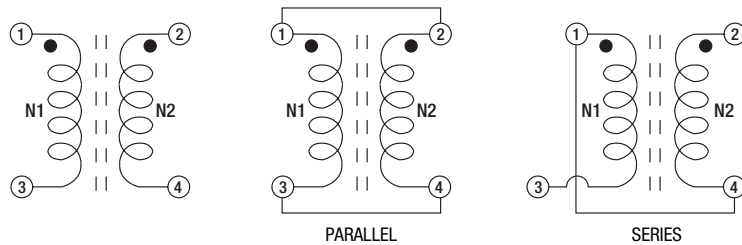
- DC/DC converters
- Power supplies
- SEPIC - DC/DC converters

# SRF1280A Series - Dual-Winding Shielded Power Inductors

### Electrical Specifications @ 25 °C

Bourns Part No.	Parallel Rating					Series Rating				
	Inductance @ 100 KHz L ( $\mu$ H)	Tol. (%)	DCR ( $\Omega$ ) Max.	Irms (A)	Isat (A)	Inductance @ 100 KHz L ( $\mu$ H)	Tol. (%)	DCR ( $\Omega$ ) Max.	Irms (A)	Isat (A)
SRF1280A-R47Y	0.47	$\pm 30$	0.0055	17.9	56	1.88	$\pm 30$	0.0216	8.94	28
SRF1280A-1R0Y	1.0	$\pm 30$	0.0067	15.5	40	4	$\pm 30$	0.026	7.74	20
SRF1280A-1R5Y	1.5	$\pm 30$	0.0076	13.5	31.1	6	$\pm 30$	0.0306	6.77	15.6
SRF1280A-2R2Y	2.2	$\pm 30$	0.0092	12.5	25.5	8.8	$\pm 30$	0.0338	6.23	12.7
SRF1280A-3R3Y	3.3	$\pm 30$	0.011	10.4	21.5	13.2	$\pm 30$	0.04	5.23	10.8
SRF1280A-4R7Y	4.7	$\pm 30$	0.0135	8.25	16.5	18.8	$\pm 30$	0.05	4.13	8.24
SRF1280A-6R8Y	6.8	$\pm 30$	0.0183	7.34	13.3	27.2	$\pm 30$	0.0656	3.67	6.67
SRF1280A-8R2Y	8.2	$\pm 30$	0.0191	6.32	12.2	32.8	$\pm 30$	0.0714	3.16	6.09
SRF1280A-100M	10	$\pm 20$	0.0241	6.04	11.2	40	$\pm 20$	0.0921	3.02	5.6
SRF1280A-150M	15	$\pm 20$	0.0333	5.03	9.66	60	$\pm 20$	0.129	2.51	4.83
SRF1280A-220M	22	$\pm 20$	0.0503	4	7.57	88	$\pm 20$	0.192	2	3.78
SRF1280A-330M	33	$\pm 20$	0.0664	3.23	6.22	132	$\pm 20$	0.265	1.61	3.11
SRF1280A-470M	47	$\pm 20$	0.0898	2.95	5.28	188	$\pm 20$	0.353	1.47	2.64
SRF1280A-680M	68	$\pm 20$	0.123	2.44	4.44	272	$\pm 20$	0.469	1.22	2.22
SRF1280A-820M	82	$\pm 20$	0.153	2.09	4.06	328	$\pm 20$	0.578	1.04	2.03
SRF1280A-101M	100	$\pm 20$	0.175	1.96	3.64	400	$\pm 20$	0.701	0.98	1.82
SRF1280A-151M	150	$\pm 20$	0.261	1.59	3.01	600	$\pm 20$	1.013	0.796	1.51
SRF1280A-221M	220	$\pm 20$	0.343	1.29	2.43	880	$\pm 20$	1.38	0.645	1.22
SRF1280A-331M	330	$\pm 20$	0.54	1.04	2.01	1320	$\pm 20$	2.172	0.522	1.01
SRF1280A-471M	470	$\pm 20$	0.865	0.85	1.68	1880	$\pm 20$	3.3	0.427	0.838
SRF1280A-681M	680	$\pm 20$	1.296	0.76	1.39	2720	$\pm 20$	4.888	0.38	0.697
SRF1280A-821M	820	$\pm 20$	1.632	0.65	1.27	3280	$\pm 20$	5.896	0.325	0.633
SRF1280A-102M	1000	$\pm 20$	1.992	0.61	1.14	4000	$\pm 20$	7.202	0.307	0.571

### Electrical Schematic



### Recommended Layout



### General Specifications

Test Voltage .....0.25 V  
 Operating Temperature .....-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature .....-40 °C to +125 °C  
 Resistance to Solder Heat .....+245 °C for 10 sec.  
 Temperature Rise .....40 °C typ. at rated Irms  
 Inductance drop .....30 % at Isat  
 Hi-pot (N1-N2) .....500 Vac/60 Hz, 3 mA, 1 sec  
 Moisture Sensitivity Level .....1  
 ESD Classification (HBM) .....N/A

### Materials

Core .....Ferrite  
 Wire .....Enameled copper  
 Terminal Finish .....Sn  
 Packaging .....400 pcs. per reel

### Product Dimensions



**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 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.  
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Users should verify actual device performance in their specific applications.

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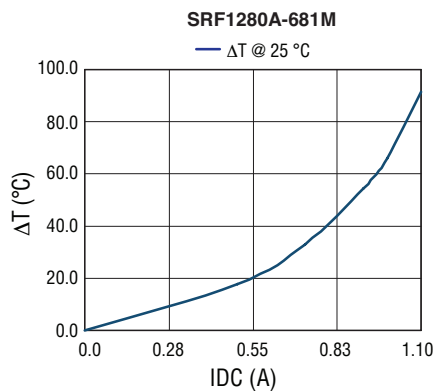
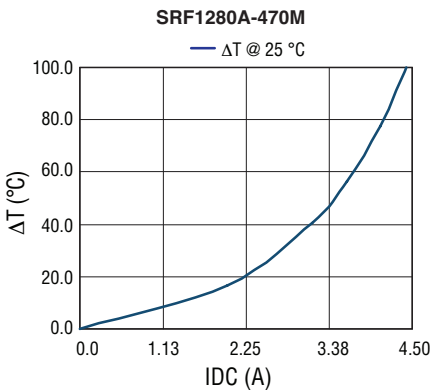
# SRF1280A Series - Dual-Winding Shielded Power Inductors



## Inductance vs. IDC



## Temperature Rise vs. IDC



## Soldering Profile



## How to Order

**SRF1280A - 100M**

Model \_\_\_\_\_

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

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# SRF1280A Series - Dual-Winding Shielded Power Inductors

**BOURNS®**

## Packaging Specifications



REV. 11/18

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

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