



## 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

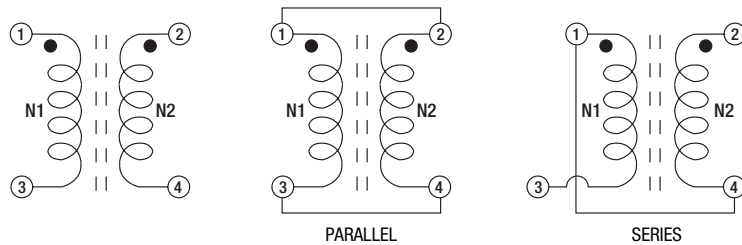
- DC/DC converters
- Power supplies
- SEPIC - DC/DC converters

# 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.  
 Specifications are subject to change without notice.

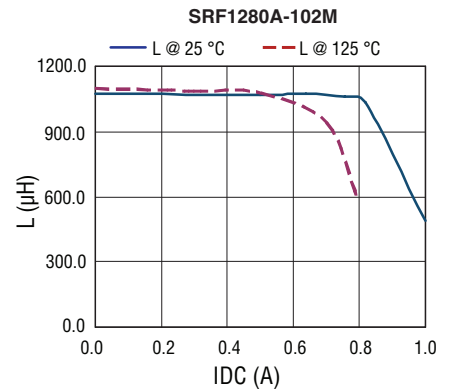
Users should verify actual device performance in their specific applications.

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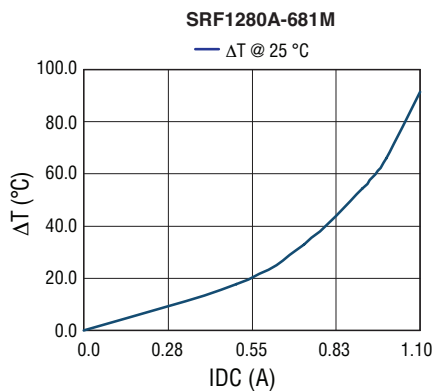
# SRF1280A Series - Dual-Winding Shielded Power Inductors



## Inductance vs. IDC



## Temperature Rise vs. IDC



## Soldering Profile



## How to Order

**SRF1280A - 100M**  
 Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

# SRF1280A Series - Dual-Winding Shielded Power Inductors



## Packaging Specifications



REV. 11/18

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