



Features

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

Applications

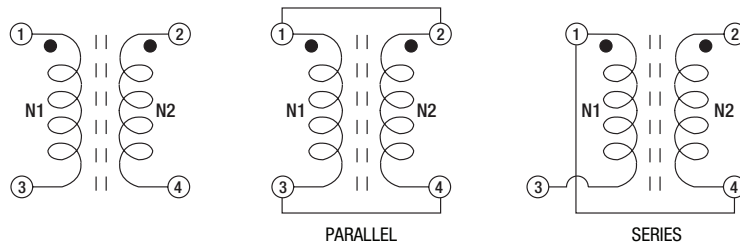
- DC/DC converters
- Power supplies
- SEPIC - DC/DC converters

SRF1280A Series - Dual-Winding Shielded Power Inductors

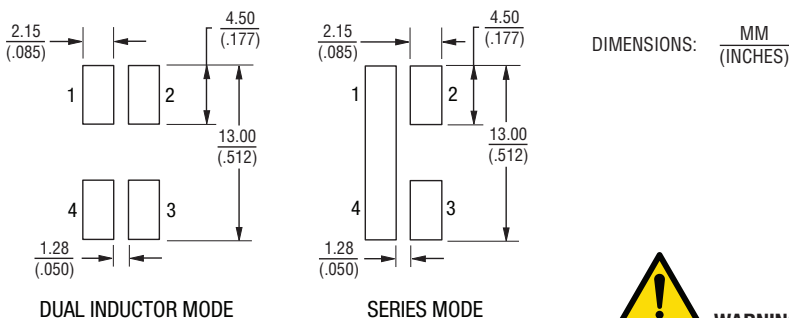
Electrical Specifications @ 25 °C

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

Electrical Schematic



Recommended Layout



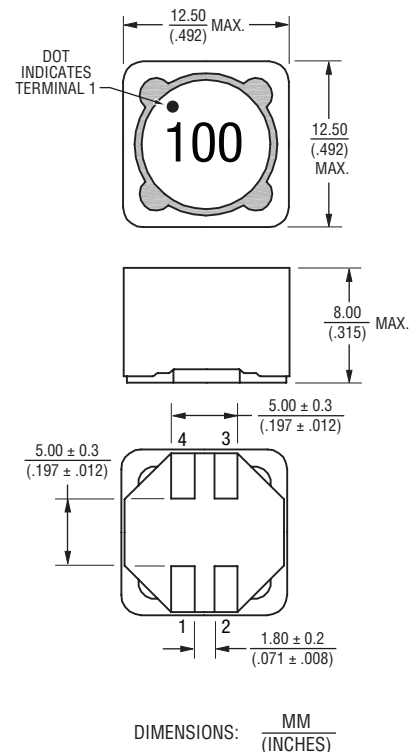
General Specifications

| | |
|----------------------------|--|
| 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 I _{rms} |
| 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

* 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.

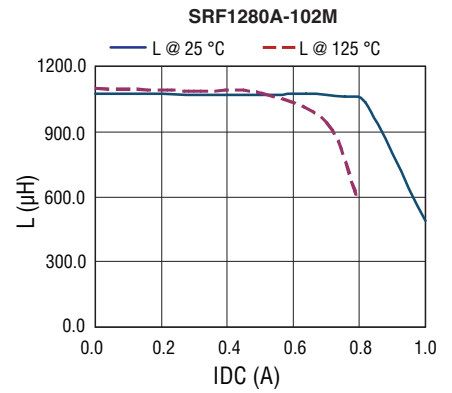
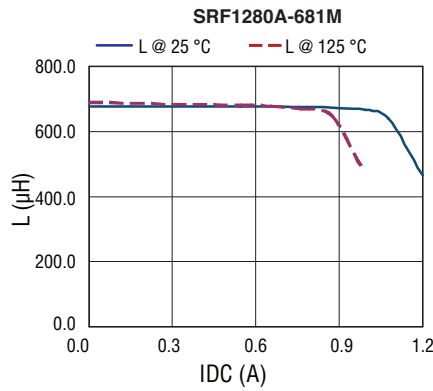
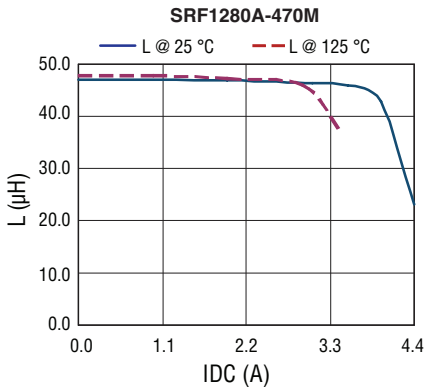
Users should verify actual device performance in their specific applications.

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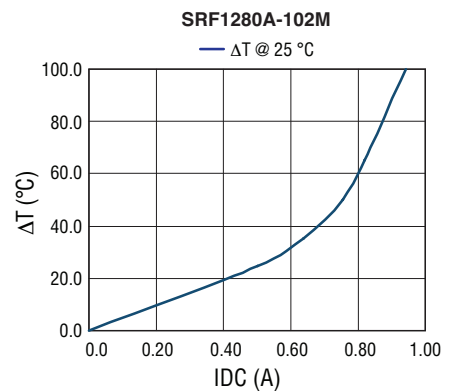
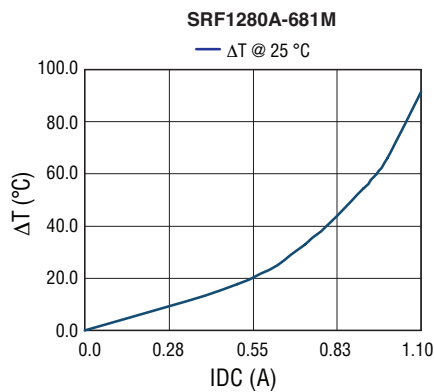
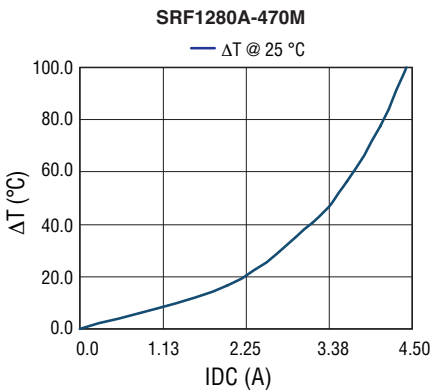
SRF1280A Series - Dual-Winding Shielded Power Inductors



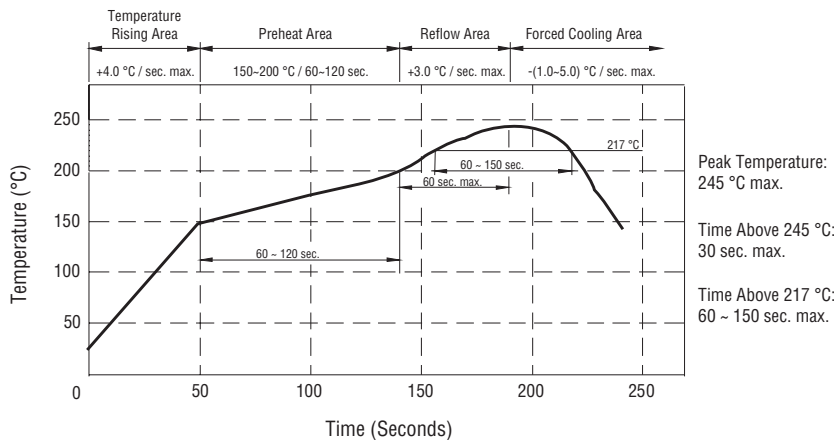
Inductance vs. IDC



Temperature Rise vs. IDC



Soldering Profile



How to Order

SRF1280A - 100M

Model _____

Value Code (see table) _____

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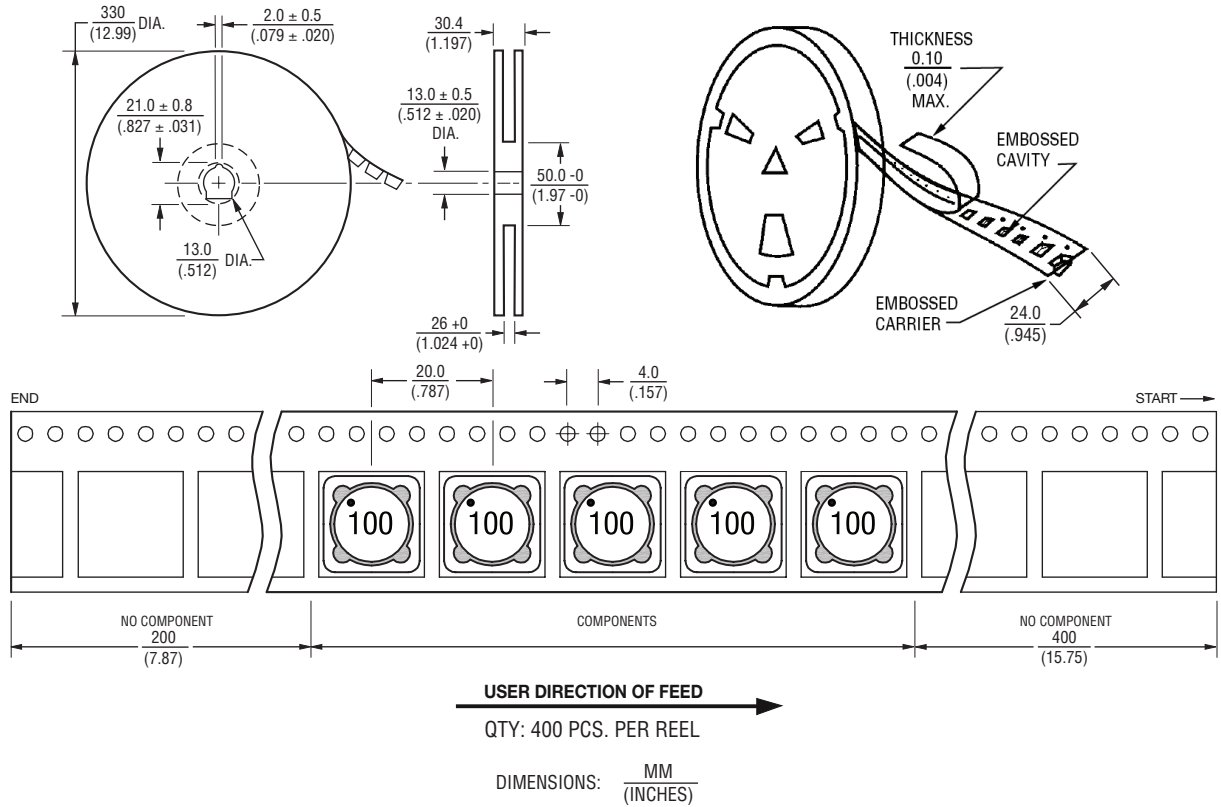
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BOURNS®

Packaging Specifications



REV. 11/18

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- Оценку стоимости проекта по компонентам.
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Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru