



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 qualified
- RoHS compliant* and halogen free**

Applications

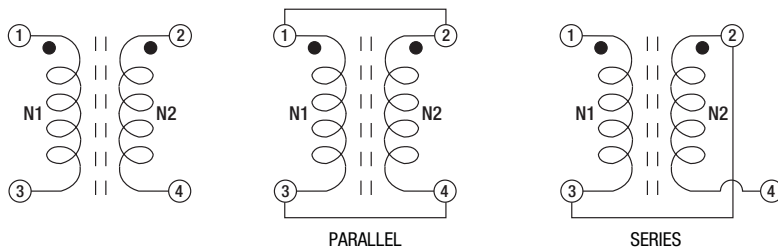
- Automotive systems:
 - Driver assistant
 - Entertainment
 - Information
 - Lighting
- DC/DC converters
- Power supplies
- SEPIC - DC/DC converters

SRF1280A Series - Dual-Winding Shielded Power Inductors

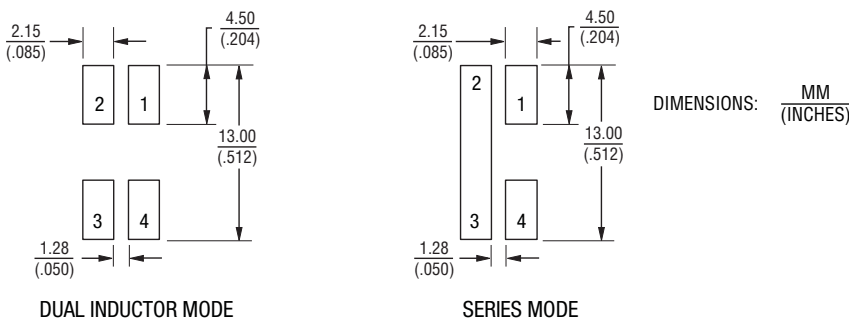
Electrical Specifications @ 25 °C

| 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



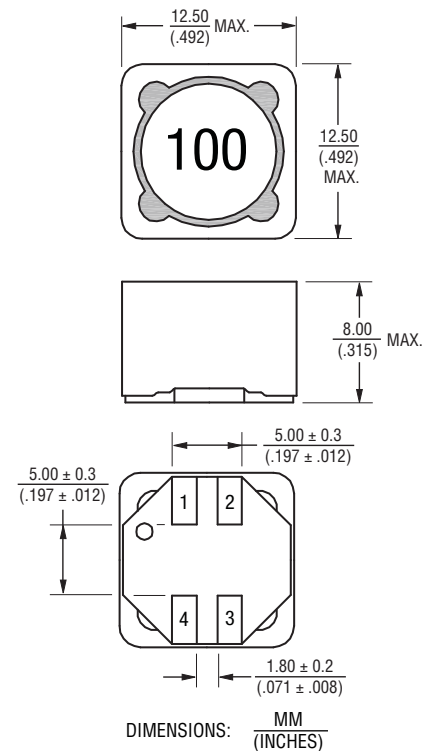
General Specifications

Test Voltage0.25 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 Rise40 °C typ. at rated I_{rms}
 Inductance drop30 % at Isat

Materials

CoreFerrite
 WireEnameled copper
 Terminal FinishSn
 Packaging400 pcs. per reel

Product Dimensions



How to Order

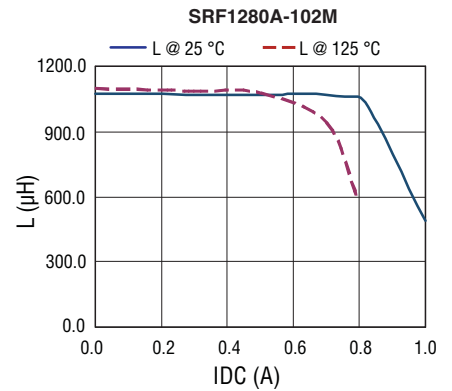
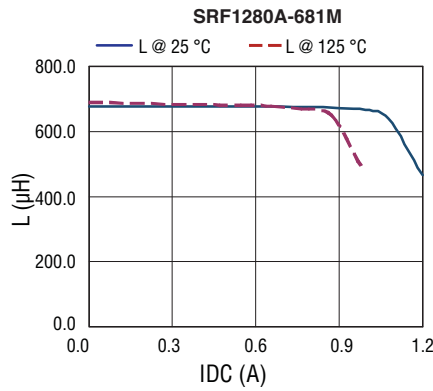
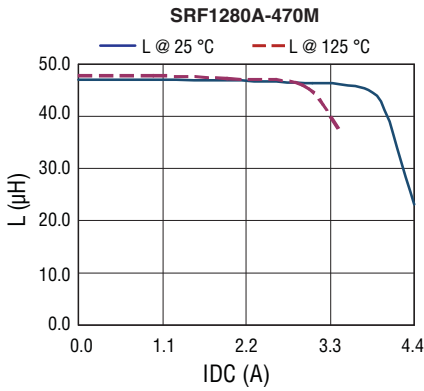
SRF1280A - 100M
 Model _____
 Value Code (see table) _____

* 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.

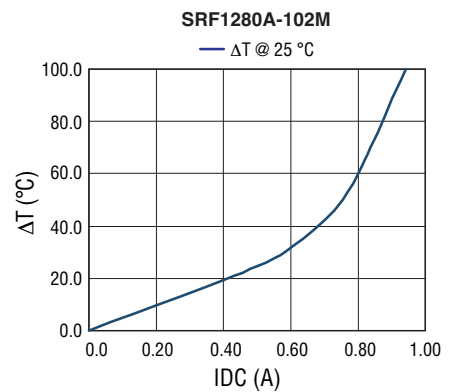
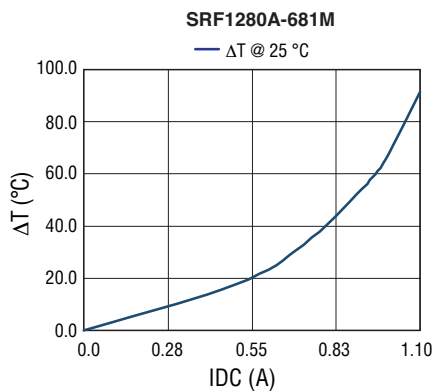
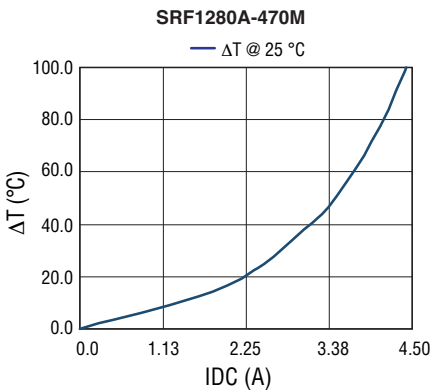
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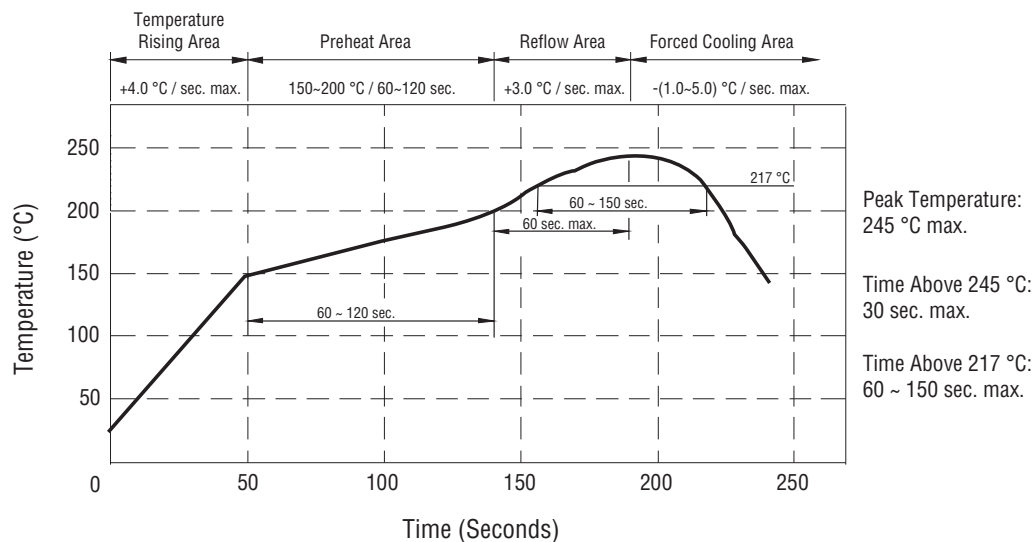
Inductance vs. IDC



Temperature Rise vs. IDC



Soldering Profile

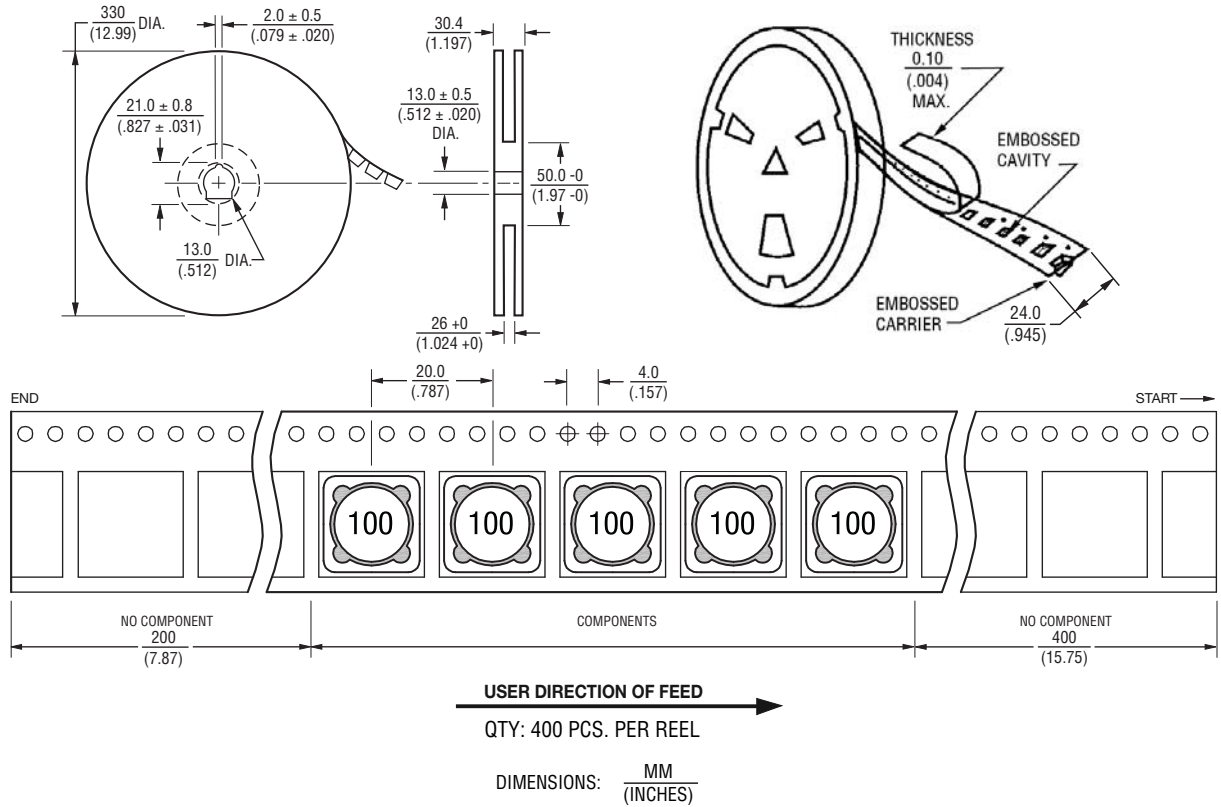


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BOURNS®

Packaging Specifications



BOURNS®

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