



Features

- Available in E12 values
- Inductance range as low as 1.1 μH
- Current rating to 10.2 amps
- RoHS compliant*

Applications

- Input/output of DC/DC converters
- Power supplies for:
 - Portable communication equipment
 - Camcorders
 - LCD televisions

SRR1280 Series - Shielded SMD Power Inductors

Electrical Specifications

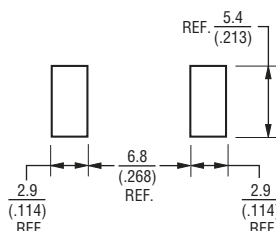
| Bourns Part Number | Inductance | | Q (Typ.) | Test Freq. (MHz) | SRF Typ. (MHz) | RDC Max. (m Ω) | I rms Max. (A) | I sat Typ. (A) | **K-Factor |
|--------------------|-------------------|----------|----------|------------------|----------------|------------------------|----------------|----------------|------------|
| | (μH) | Tol. (%) | | | | | | | |
| SRR1280-1R1Y | 1.1 | ± 30 | 26 | 7.96 | 85 | 6.5 | 10.20 | 14.00 | 94 |
| SRR1280-1R2Y | 1.2 | ± 30 | 28 | 7.96 | 83 | 18.0 | 6.60 | 7.80 | 90 |
| SRR1280-1R4Y | 1.4 | ± 30 | 24 | 7.96 | 80 | 9.8 | 9.80 | 12.00 | 90 |
| SRR1280-2R4Y | 2.4 | ± 30 | 20 | 7.96 | 45 | 10.0 | 9.20 | 10.50 | 62 |
| SRR1280-3R3Y | 3.3 | ± 30 | 20 | 7.96 | 40 | 12.0 | 8.80 | 9.80 | 54 |
| SRR1280-3R5Y | 3.5 | ± 30 | 20 | 7.96 | 36 | 12.0 | 8.80 | 9.80 | 56 |
| SRR1280-4R5Y | 4.5 | ± 30 | 20 | 7.96 | 34 | 13.5 | 8.50 | 9.00 | 48 |
| SRR1280-4R7Y | 4.7 | ± 30 | 22 | 7.96 | 30 | 15.5 | 8.20 | 8.80 | 48 |
| SRR1280-5R6Y | 5.6 | ± 30 | 20 | 7.96 | 24 | 16.0 | 8.00 | 8.50 | 44 |
| SRR1280-6R1Y | 6.1 | ± 30 | 20 | 7.96 | 23 | 18.0 | 6.60 | 7.80 | 43 |
| SRR1280-6R8Y | 6.8 | ± 30 | 20 | 7.96 | 22 | 18.5 | 7.60 | 8.00 | 39 |
| SRR1280-7R5Y | 7.5 | ± 30 | 16 | 7.96 | 21 | 17.5 | 6.40 | 7.00 | 37 |
| SRR1280-7R6Y | 7.6 | ± 30 | 15 | 7.96 | 21 | 20.0 | 5.90 | 6.50 | 35 |
| SRR1280-8R2Y | 8.2 | ± 30 | 22 | 2.52 | 20 | 20.5 | 6.20 | 6.80 | 35 |
| SRR1280-100M | 10.0 | ± 20 | 24 | 2.52 | 17 | 19.5 | 6.00 | 6.30 | 32 |
| SRR1280-120M | 12.0 | ± 20 | 26 | 2.52 | 15 | 28.0 | 5.60 | 6.60 | 30 |
| SRR1280-150M | 15.0 | ± 20 | 26 | 2.52 | 13 | 28.5 | 5.20 | 5.00 | 28 |
| SRR1280-180M | 18.0 | ± 20 | 24 | 2.52 | 12 | 35.0 | 4.80 | 4.60 | 23 |
| SRR1280-220M | 22.0 | ± 20 | 20 | 2.52 | 11 | 38.6 | 4.30 | 4.10 | 21 |
| SRR1280-270M | 27.0 | ± 20 | 26 | 2.52 | 10 | 52.0 | 3.90 | 3.70 | 20 |
| SRR1280-330M | 33.0 | ± 20 | 28 | 2.52 | 9.5 | 57.0 | 3.50 | 3.30 | 17 |
| SRR1280-390M | 39.0 | ± 20 | 24 | 2.52 | 8.5 | 70.0 | 3.20 | 3.10 | 16 |
| SRR1280-470M | 47.0 | ± 20 | 24 | 2.52 | 7.5 | 80.0 | 2.90 | 2.80 | 15 |
| SRR1280-560M | 56.0 | ± 20 | 24 | 2.52 | 7.0 | 100.0 | 2.60 | 2.50 | 13 |
| SRR1280-680M | 68.0 | ± 20 | 20 | 2.52 | 6.5 | 120.0 | 2.40 | 2.30 | 12 |
| SRR1280-820M | 82.0 | ± 20 | 20 | 0.796 | 5.0 | 130.0 | 2.30 | 2.20 | 11 |
| SRR1280-101M | 100.0 | ± 20 | 18 | 0.796 | 4.5 | 150.0 | 2.10 | 2.00 | 10 |
| SRR1280-121K | 120.0 | ± 10 | 16 | 0.796 | 4.3 | 200.0 | 1.95 | 1.95 | 9 |
| SRR1280-151K | 150.0 | ± 10 | 24 | 0.796 | 4.1 | 270.0 | 1.85 | 1.90 | 8 |
| SRR1280-181K | 180.0 | ± 10 | 24 | 0.796 | 4.0 | 300.0 | 1.75 | 1.88 | 7 |
| SRR1280-221K | 220.0 | ± 10 | 24 | 0.796 | 3.4 | 400.0 | 1.60 | 1.70 | 7 |
| SRR1280-271K | 270.0 | ± 10 | 20 | 0.796 | 3.1 | 450.0 | 1.20 | 1.60 | 6 |
| SRR1280-331K | 330.0 | ± 10 | 18 | 0.796 | 2.9 | 600.0 | 1.10 | 1.40 | 5 |
| SRR1280-391K | 390.0 | ± 10 | 20 | 0.796 | 2.7 | 680.0 | 1.00 | 1.40 | 5 |
| SRR1280-471K | 470.0 | ± 10 | 20 | 0.796 | 2.2 | 880.0 | 0.90 | 1.25 | 5 |
| SRR1280-561K | 560.0 | ± 10 | 20 | 0.796 | 2.0 | 960.0 | 0.80 | 1.15 | 4 |
| SRR1280-681K | 680.0 | ± 10 | 26 | 0.796 | 1.7 | 1300.0 | 0.75 | 0.97 | 4 |
| SRR1280-821K | 820.0 | ± 10 | 20 | 0.796 | 1.4 | 1500.0 | 0.70 | 0.94 | 4 |
| SRR1280-102K | 1000.0 | ± 10 | 40 | 0.252 | 1.3 | 1700.0 | 0.68 | 0.80 | 3 |

**K-Factor: To calculate core flux density, Bp-p (gauss) = $K \times L(\mu\text{H}) \times \Delta I$ (peak-to-peak ripple current, A), determine core loss from Core Loss vs. Flux Density plot.

Electrical Schematic



Recommended Layout



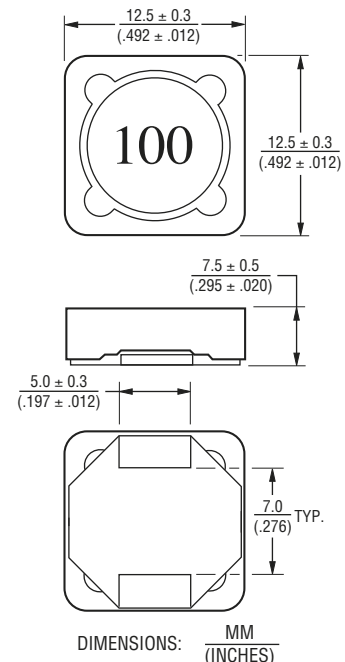
General Specifications

Inductance Test Frequency / Voltage
 SRR1280-1R1Y to -8R2Y ... 100 kHz/1 V
 SRR1280-100M to -102K 1 kHz/1 V
 Operating Temperature
 -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature
 -40 °C to +125 °C
 Resistance to Soldering Heat
 +260 °C for 10 sec.
 Temperature Rise
 40 °C max. at rated I rms
 Inductance Drop 25 % typ. at I sat
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Materials

Core Ferrite DR and RI
 Wire Enamelled copper wire 130
 Terminal Cu/Ni/Sn
 Packaging 400 pcs. per reel

Product Dimensions



* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

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WARNING Cancer and Reproductive Harm
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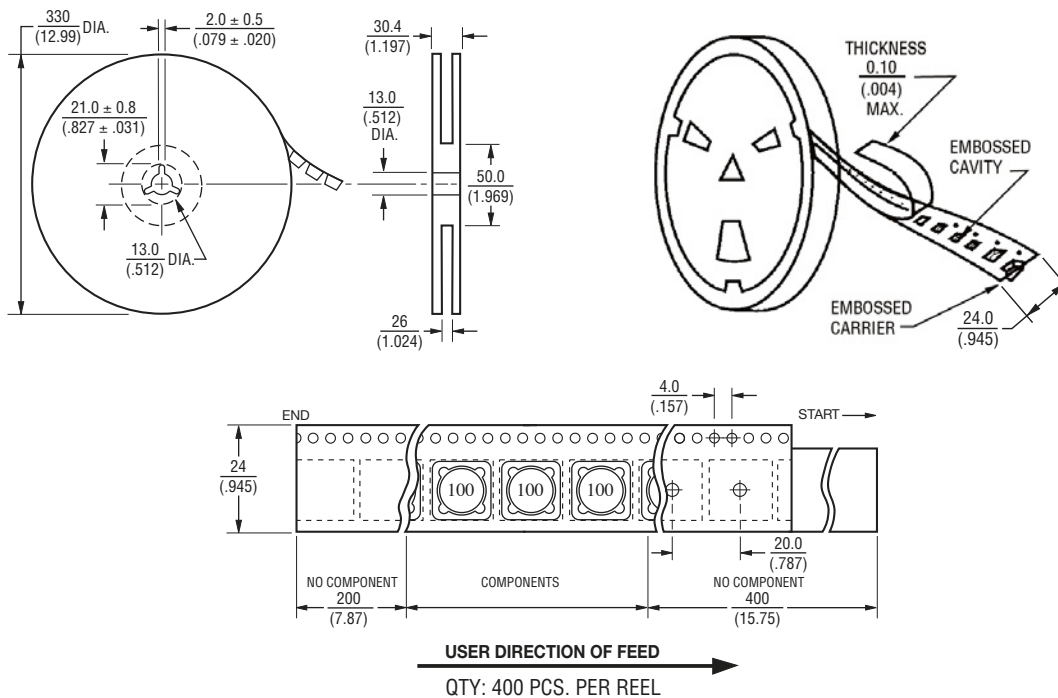
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Core Loss vs. Flux Density



Packaging Specifications



REV. 03/18

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