

*RoHS COMPLIANT



BOURNS®

Features

- Multiple applications: parallel, series, dual-inductor and transformer
- Magnetically shielded, low radiation
- Inductance range: 0.33 to 4000 μ H
- Rated current up to 6.19 A
- RoHS compliant*

Applications

- SEPIC topology
- Power supplies for:
 - Communication equipment
 - Notebooks, desktop computers, servers
 - LCDs, flat panels, backlights
 - Camcorders, HDTVs, car audio systems

SRF0703 Series - Dual-Winding Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Parallel Rating | | | | Series Rating | | | |
|-----------------|--|-----------------------|----------------------|----------------------|--|-----------------------|----------------------|----------------------|
| | Inductance @ 100 KHz L (μ H) \pm 20 % | DCR (Ω) Max. | I _{rms} (A) | I _{sat} (A) | Inductance @ 100 KHz L (μ H) \pm 20 % | DCR (Ω) Max. | I _{rms} (A) | I _{sat} (A) |
| SRF0703-R33M | 0.33 | 0.0092 | 6.19 | 14.4 | 1.32 | 0.04 | 3.1 | 7.18 |
| SRF0703-1R0M | 1.0 | 0.0135 | 5.25 | 7.97 | 4 | 0.072 | 2.63 | 3.99 |
| SRF0703-1R5M | 1.5 | 0.0191 | 4.64 | 6.52 | 6 | 0.11 | 2.32 | 3.26 |
| SRF0703-2R2M | 2.2 | 0.0217 | 4.11 | 5.52 | 8.8 | 0.132 | 2.06 | 2.76 |
| SRF0703-3R3M | 3.3 | 0.0316 | 3.31 | 4.22 | 13.2 | 0.182 | 1.66 | 2.11 |
| SRF0703-4R7M | 4.7 | 0.0406 | 3.09 | 3.78 | 18.8 | 0.242 | 1.55 | 1.89 |
| SRF0703-6R8M | 6.8 | 0.0658 | 2.55 | 3.12 | 27.2 | 0.285 | 1.28 | 1.56 |
| SRF0703-8R2M | 8.2 | 0.0772 | 2.19 | 2.66 | 32.8 | 0.306 | 1.1 | 1.33 |
| SRF0703-100M | 10 | 0.0826 | 2.08 | 2.47 | 40 | 0.342 | 1.04 | 1.24 |
| SRF0703-150M | 15 | 0.119 | 1.83 | 2.05 | 60 | 0.47 | 0.916 | 1.03 |
| SRF0703-220M | 22 | 0.15 | 1.62 | 1.67 | 88 | 0.62 | 0.811 | 0.83 |
| SRF0703-330M | 33 | 0.24 | 1.31 | 1.35 | 132 | 1.0 | 0.653 | 0.68 |
| SRF0703-470M | 47 | 0.338 | 1.08 | 1.14 | 188 | 1.28 | 0.542 | 0.57 |
| SRF0703-680M | 68 | 0.507 | 0.89 | 0.96 | 272 | 1.92 | 0.444 | 0.48 |
| SRF0703-820M | 82 | 0.61 | 0.86 | 0.89 | 328 | 2.28 | 0.43 | 0.44 |
| SRF0703-101M | 100 | 0.715 | 0.73 | 0.79 | 400 | 2.64 | 0.367 | 0.39 |
| SRF0703-151M | 150 | 0.986 | 0.58 | 0.65 | 600 | 3.63 | 0.289 | 0.32 |
| SRF0703-221M | 220 | 1.48 | 0.52 | 0.53 | 880 | 5.5 | 0.26 | 0.27 |
| SRF0703-331M | 330 | 2.16 | 0.42 | 0.44 | 1320 | 8.25 | 0.211 | 0.22 |
| SRF0703-471M | 470 | 2.82 | 0.35 | 0.37 | 1880 | 11.22 | 0.173 | 0.18 |
| SRF0703-681M | 680 | 3.96 | 0.29 | 0.31 | 2720 | 16.17 | 0.143 | 0.15 |
| SRF0703-821M | 820 | 5.01 | 0.27 | 0.28 | 3280 | 20.07 | 0.134 | 0.14 |
| SRF0703-102M | 1000 | 6.11 | 0.26 | 0.25 | 4000 | 24.42 | 0.128 | 0.13 |

General Specifications

Test Voltage0.25 V
 Hi-pot500 Vrms, 3 mA, 3 sec.
 Reflow Soldering .. 230 °C; 50 sec. max.
 Operating Temperature
 -40 °C to +125 °C
 (Temperature rise included)
 Storage Temperature .. -40 °C to +125 °C
 Resistance to Solder Heat
 +260 °C for 10 sec.

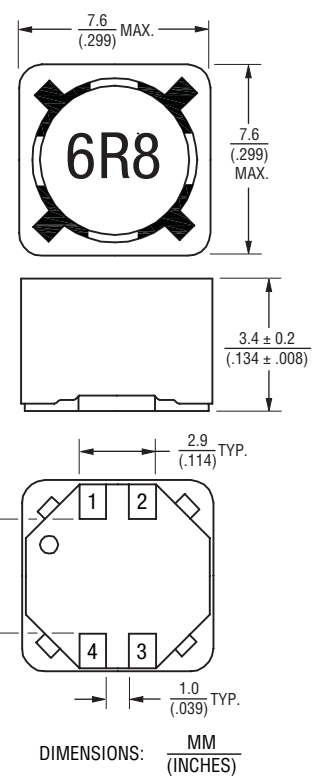
Materials

Core Ferrite
 Wire Enameled copper
 Base LCP
 Adhesive Epoxy resin
 Terminal Sn
 Rated Current
 Inductance drops 30 % at I_{sat}
 Temperature Rise 40 °C at rated I_{rms}
 Packaging 1500 pcs. per 13-inch reel

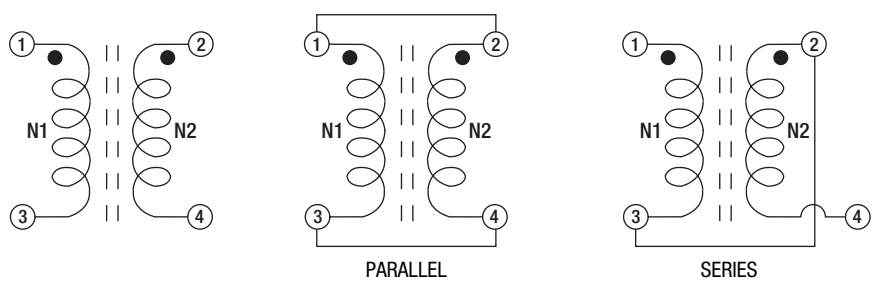
How to Order

SRF0703 - 100M
 Model _____
 Value Code (see table) _____

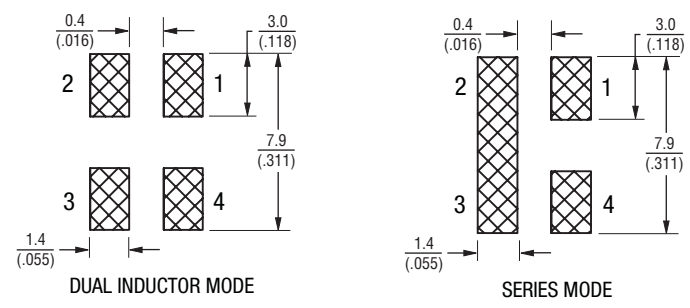
Product Dimensions



Electrical Schematic



Recommended Layout



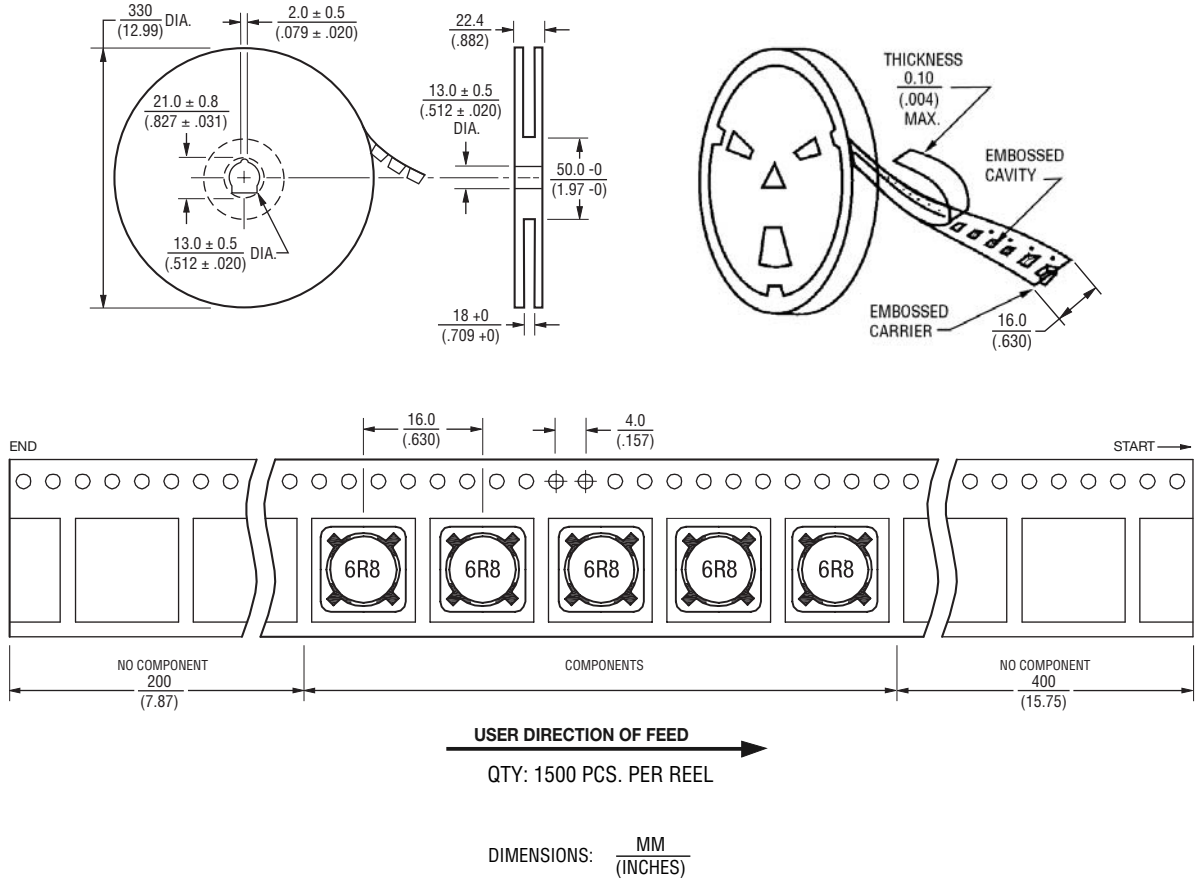
*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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Packaging Specifications



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