



**THE DATASHEET OF
SRF0703-102M**





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

SRF0703 Series - Dual-Winding Shielded Power Inductors

Electrical Specifications @ 25 °C

| Bourns Part No. | Parallel Rating | | | | Series Rating | | | |
|-----------------|--|-----------------------|----------------------|----------------------|--|-----------------------|----------------------|----------------------|
| | Inductance @ 100 KHz L (μ H) ± 20 % | DCR (Ω) Max. | I _{rms} (A) | I _{sat} (A) | Inductance @ 100 KHz L (μ H) ± 20 % | DCR (Ω) Max. | I _{rms} (A) | I _{sat} (A) |
| SRF0703-R33M | 0.33 | 0.0092 | 6.19 | 14.4 | 1.34 | 0.04 | 3.1 | 7.18 |
| SRF0703-1R0M | 1.0 | 0.0135 | 5.25 | 7.97 | 3.86 | 0.072 | 2.63 | 3.99 |
| SRF0703-1R5M | 1.5 | 0.0191 | 4.64 | 6.52 | 5.83 | 0.11 | 2.32 | 3.26 |
| SRF0703-2R2M | 2.2 | 0.0217 | 4.11 | 5.52 | 8.13 | 0.132 | 2.06 | 2.76 |
| SRF0703-3R3M | 3.3 | 0.0316 | 3.31 | 4.22 | 13.60 | 0.182 | 1.66 | 2.11 |
| SRF0703-4R7M | 4.7 | 0.0406 | 3.09 | 3.78 | 17.10 | 0.242 | 1.55 | 1.89 |
| SRF0703-6R8M | 6.8 | 0.0658 | 2.55 | 3.12 | 25.50 | 0.285 | 1.28 | 1.56 |
| SRF0703-8R2M | 8.2 | 0.0772 | 2.19 | 2.66 | 34.10 | 0.306 | 1.1 | 1.33 |
| SRF0703-100M | 10 | 0.0826 | 2.08 | 2.47 | 39.60 | 0.342 | 1.04 | 1.24 |
| SRF0703-150M | 15 | 0.119 | 1.83 | 2.05 | 59.60 | 0.47 | 0.916 | 1.03 |
| SRF0703-220M | 22 | 0.15 | 1.62 | 1.67 | 89.50 | 0.62 | 0.811 | 0.83 |
| SRF0703-330M | 33 | 0.24 | 1.31 | 1.35 | 140.50 | 1.0 | 0.653 | 0.68 |
| SRF0703-470M | 47 | 0.338 | 1.08 | 1.14 | 194.20 | 1.28 | 0.542 | 0.57 |
| SRF0703-680M | 68 | 0.507 | 0.89 | 0.96 | 289.30 | 1.92 | 0.444 | 0.48 |
| SRF0703-820M | 82 | 0.61 | 0.86 | 0.89 | 324.70 | 2.28 | 0.43 | 0.44 |
| SRF0703-101M | 100 | 0.715 | 0.73 | 0.79 | 397.60 | 2.64 | 0.367 | 0.39 |
| SRF0703-151M | 150 | 0.986 | 0.58 | 0.65 | 608.20 | 3.63 | 0.289 | 0.32 |
| SRF0703-221M | 220 | 1.48 | 0.52 | 0.53 | 922.60 | 5.5 | 0.26 | 0.27 |
| SRF0703-331M | 330 | 2.16 | 0.42 | 0.44 | 1335.00 | 8.25 | 0.211 | 0.22 |
| SRF0703-471M | 470 | 2.82 | 0.35 | 0.37 | 1859.00 | 11.22 | 0.173 | 0.18 |
| SRF0703-681M | 680 | 3.96 | 0.29 | 0.31 | 2930.00 | 16.17 | 0.143 | 0.15 |
| SRF0703-821M | 820 | 5.01 | 0.27 | 0.28 | 3559.00 | 20.07 | 0.134 | 0.14 |
| SRF0703-102M | 1000 | 6.11 | 0.26 | 0.25 | 4120.00 | 24.42 | 0.128 | 0.13 |

General Specifications

Test Voltage 0.25 V
 Hi-pot 500 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.
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Materials

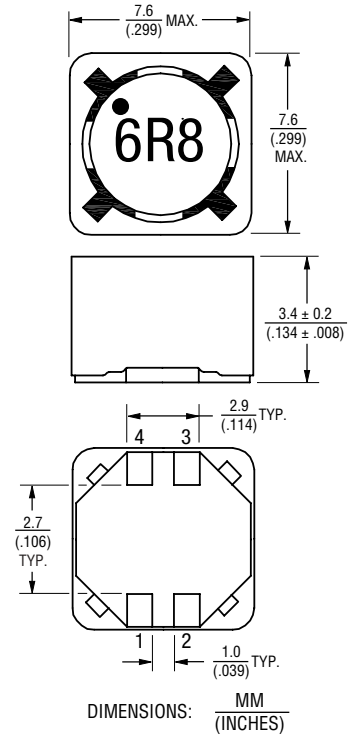
Core Ferrite
 Wire Enameled copper
 Base LCP
 Adhesive Epoxy resin
 Terminal Cu/Ni/Sn
 Rated Current
 Inductance drops 30 % at I_{sat}
 Temperature Rise 40 °C at rated I_{rms}
 Packaging 1500 pcs. per 13-inch reel

How to Order

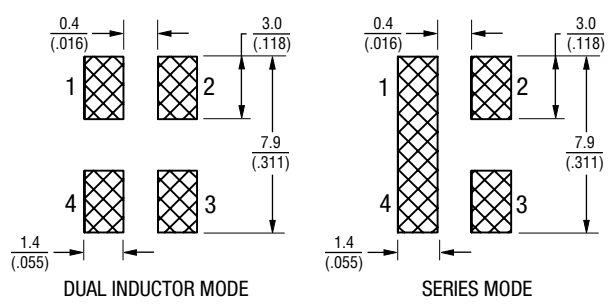
SRF0703 - 100M

Model _____
 Value Code (see table) _____

Product Dimensions



Recommended Layout



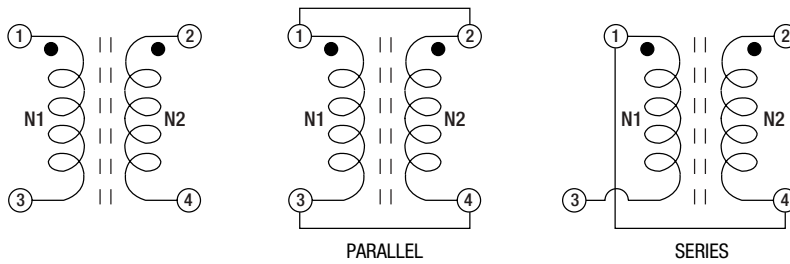
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

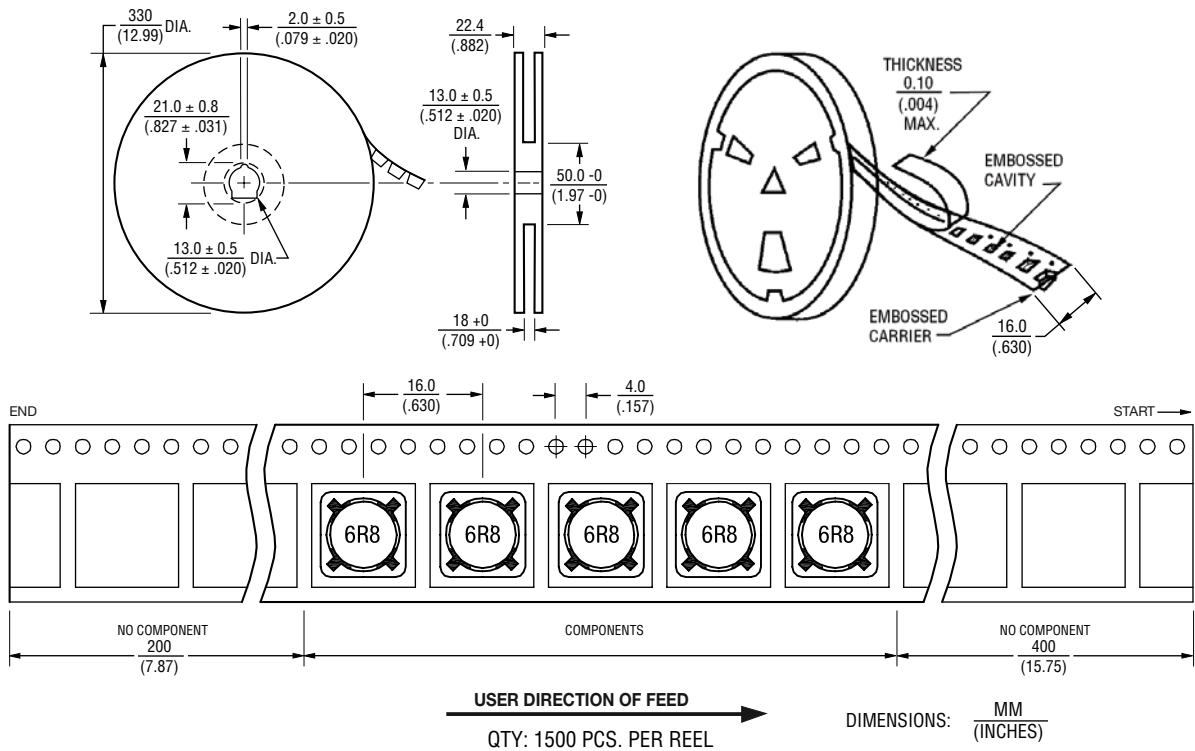
SRF0703 Series - Dual-Winding Shielded Power Inductors

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Electrical Schematic



Packaging Specifications



BOURNS®

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REV. 06/19

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