



**THE DATASHEET OF  
SRF0703-1R5M**





### Features

- Multiple applications: parallel, series, dual-inductor and transformer
- Magnetically shielded, low radiation
- Inductance range: 0.33 to 4000  $\mu$ 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 ( $\mu$ H) $\pm$ 20 % | DCR ( $\Omega$ ) Max. | I <sub>rms</sub> (A) | I <sub>sat</sub> (A) | Inductance @ 100 KHz L ( $\mu$ H) $\pm$ 20 % | DCR ( $\Omega$ ) Max. | I <sub>rms</sub> (A) | I <sub>sat</sub> (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

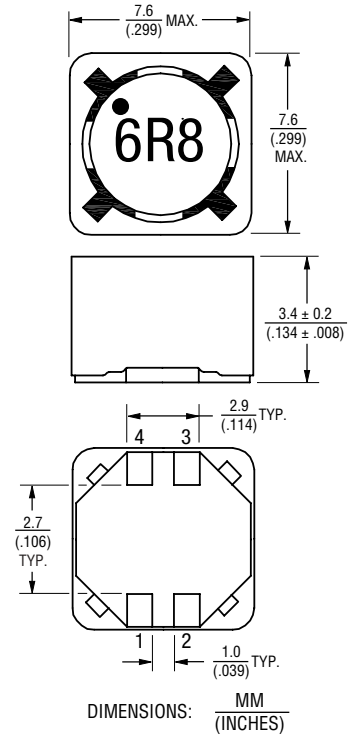
Core ..... Ferrite  
 Wire ..... Enameled copper  
 Base ..... LCP  
 Adhesive ..... Epoxy resin  
 Terminal ..... Cu/Ni/Sn  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Temperature Rise .... 40 °C at rated I<sub>rms</sub>  
 Packaging ..... 1500 pcs. per 13-inch reel

### How to Order

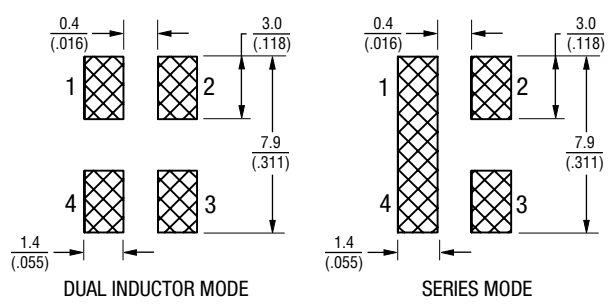
**SRF0703 - 100M**

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_

### Product Dimensions



### Recommended Layout



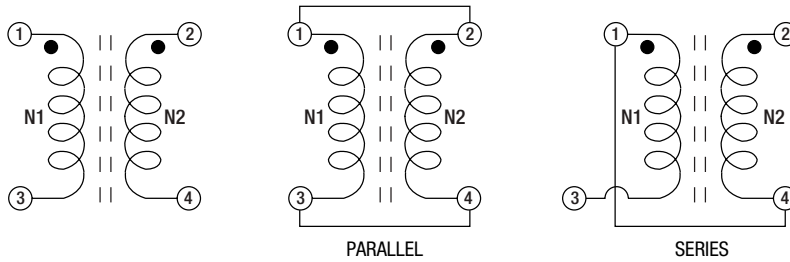
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*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.  
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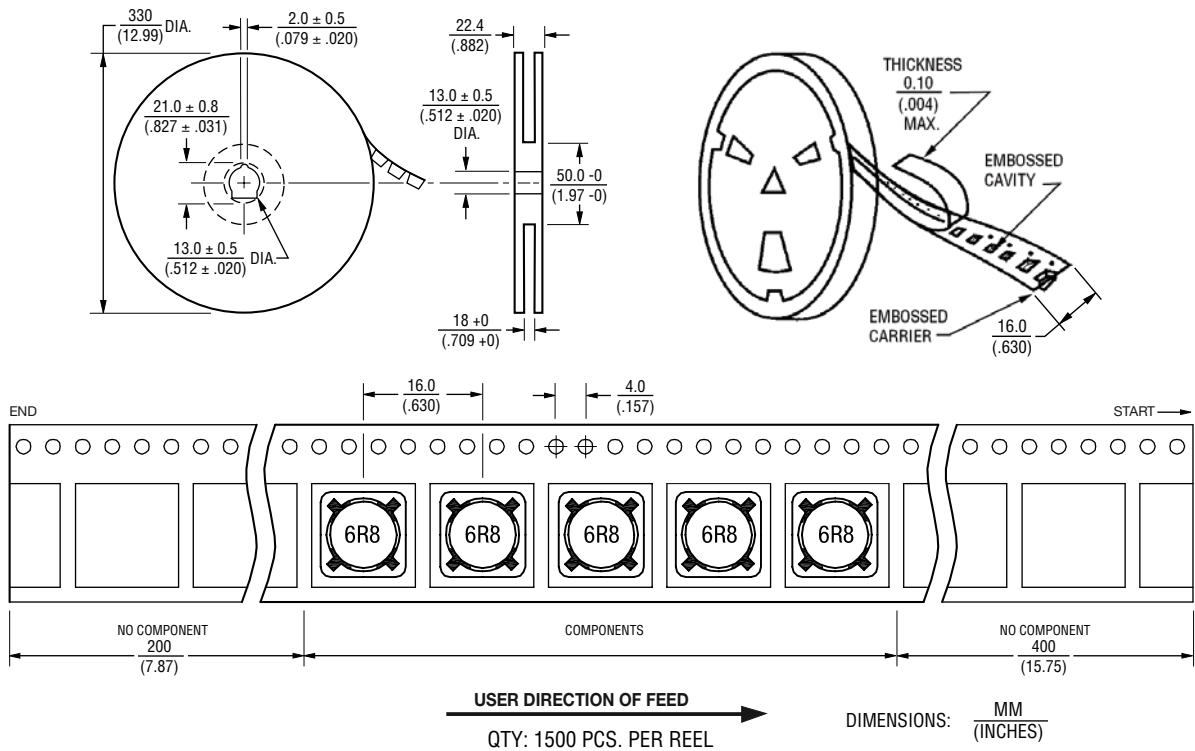
# SRF0703 Series - Dual-Winding Shielded Power Inductors

**BOURNS®**

## Electrical Schematic



## Packaging Specifications



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-  Shortage Management
-  Alternative Solution
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