



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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\*RoHS COMPLIANT



**BOURNS®**

### 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, 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 ( $\mu$ 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                 | 1.32   | 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 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.

### Materials

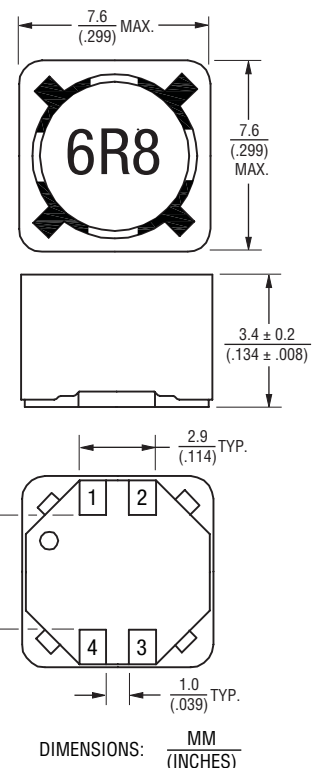
Core ..... Ferrite  
 Wire ..... Enameled copper  
 Base ..... LCP  
 Adhesive ..... Epoxy resin  
 Terminal ..... Sn  
 Rated Current  
 ..... Inductance drops 30 % at I<sub>sat</sub>  
 Temperature Rise ..... 40 °C at rated I<sub>rms</sub>  
 Packaging ..... 1500 pcs. per 13-inch reel

### How to Order

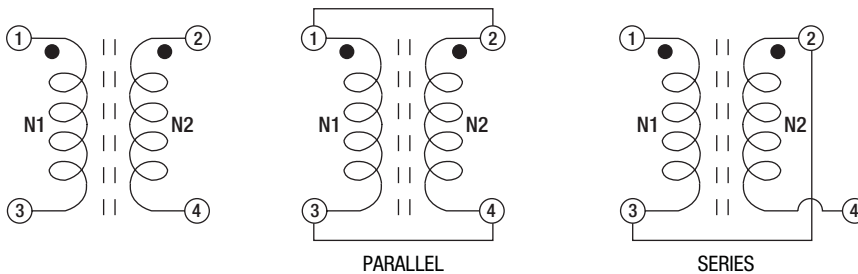
**SRF0703 - 100M**

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

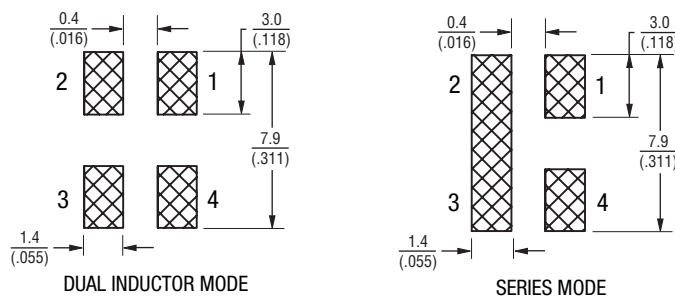
### Product Dimensions



### Electrical Schematic



### Recommended Layout



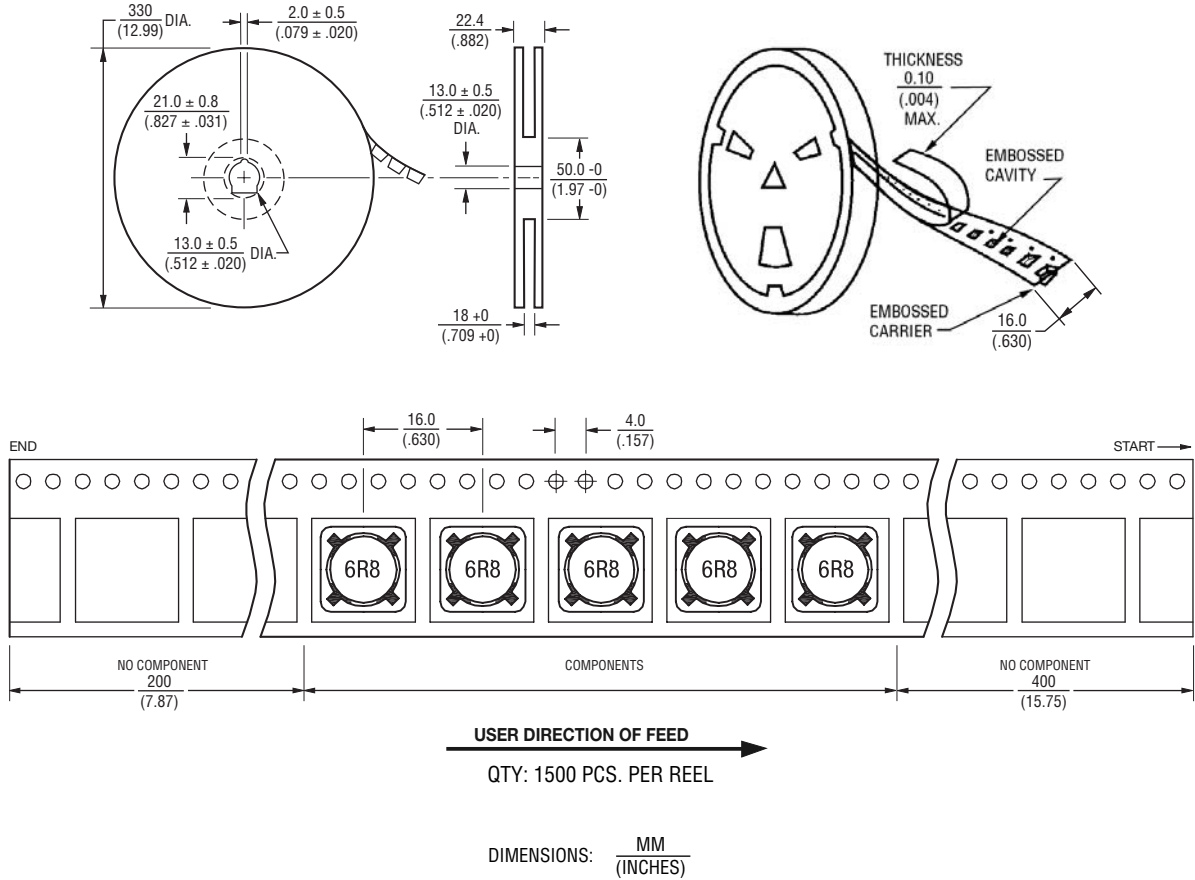
\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

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

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**BOURNS®**

## Packaging Specifications



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REV. 05/12

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