

### Features

- Current rating up to 1.4 A
- Inductance range: 120 to 5000  $\mu$ H
- Frequency range to 200 MHz
- RoHS compliant\*

### Applications

- EMI suppression

## SRF1006 Series - Line Filter

#### Electrical Specifications @ 25 °C

| Part Number  | L ( $\mu$ H) *  | Leakage Ind. ( $\mu$ H) Max. | DCR ( $\Omega$ ) max. (each winding) | Rated Voltage (Vdc) | Rated Current (A) | Impedance (Z)     |                         |
|--------------|-----------------|------------------------------|--------------------------------------|---------------------|-------------------|-------------------|-------------------------|
|              |                 |                              |                                      |                     |                   | Freq. Range (MHz) | Min. Value ( $\Omega$ ) |
| SRF1006-121Y | 120 $\pm$ 40 %  | 1.45                         | 0.025                                | 50                  | 1.40              | 10 - 200          | 200                     |
| SRF1006-251Y | 250 $\pm$ 40 %  | 3.2                          | 0.035                                | 50                  | 1.19              | 5 - 100           | 400                     |
| SRF1006-501Y | 500 $\pm$ 40 %  | 5.6                          | 0.070                                | 50                  | 0.84              | 2 - 50            | 800                     |
| SRF1006-102Y | 1000 $\pm$ 40 % | 12                           | 0.180                                | 50                  | 0.52              | 1 - 40            | 1400                    |
| SRF1006-202Y | 2000 $\pm$ 40 % | 0.23                         | 0.270                                | 50                  | 0.40              | 0.5 - 15          | 2000                    |
| SRF1006-302Y | 3000 $\pm$ 40 % | 0.26                         | 0.330                                | 50                  | 0.35              | 0.5 - 10          | 3000                    |
| SRF1006-402Y | 4000 $\pm$ 40 % | 0.27                         | 0.550                                | 50                  | 0.30              | 0.5 - 5           | 4000                    |
| SRF1006-472Y | 4700 $\pm$ 40 % | 0.28                         | 1.000                                | 50                  | 0.25              | 0.6 - 3           | 6200                    |
| SRF1006-502Y | 5000 $\pm$ 40 % | 0.29                         | 0.620                                | 50                  | 0.25              | 0.5 - 3           | 5000                    |

\* Test condition: 0.1 V, 100 KHz

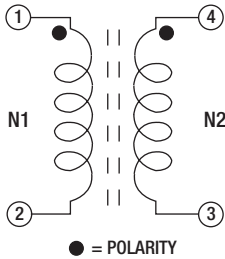
#### General Specifications

Temperature Rise .. 45 °C at rated current  
 Hi-Pot  
 120 - 1000  $\mu$ H..... 1000 Vrms, 60 Hz,  
 3 mA, 1 min.  
 2000 - 5000  $\mu$ H..... 300 Vrms, 60 Hz,  
 3 mA, 1 min.  
 Operating Temperature  
 ..... -40 °C to +105 °C  
 (Temperature rise included)  
 Storage Temperature .. -40 °C to +105 °C  
 Solderability..... 245 °C for 5 sec.  
 (JEDEC J-STD-020D)

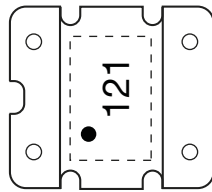
#### Materials

Core Material ..... Ferrite Base  
 Base ..... Phenolic Wire ..... Enameled copper  
 Terminal coating ..... Sn Packaging..... 800 pcs. per 13-inch reel

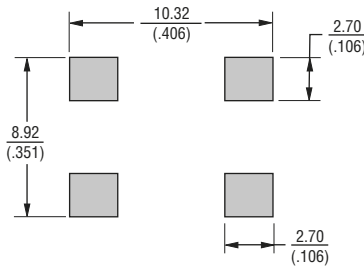
#### Schematic



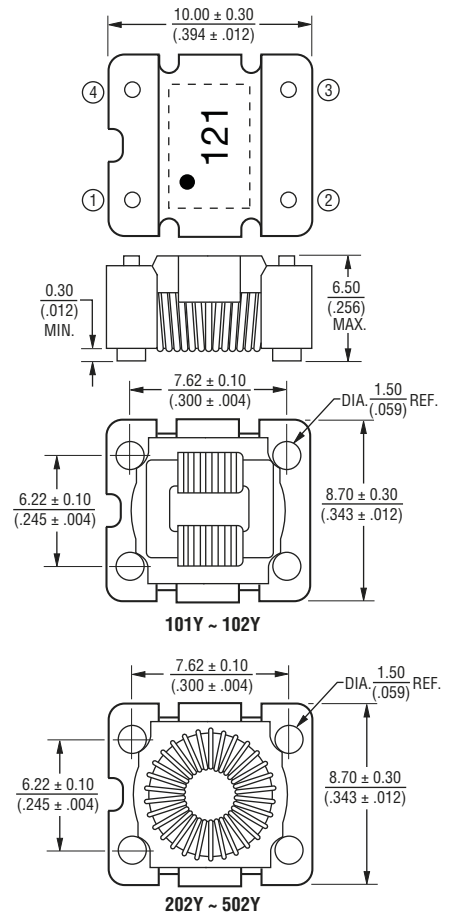
#### Typical Part Marking



#### Recommended Layout



#### Product Dimensions



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

#### How to Order

Model \_\_\_\_\_  
 Value Code (see table) \_\_\_\_\_  
 Tolerance Code \_\_\_\_\_  
 Y = 40 %

SRF1006 - 102 Y



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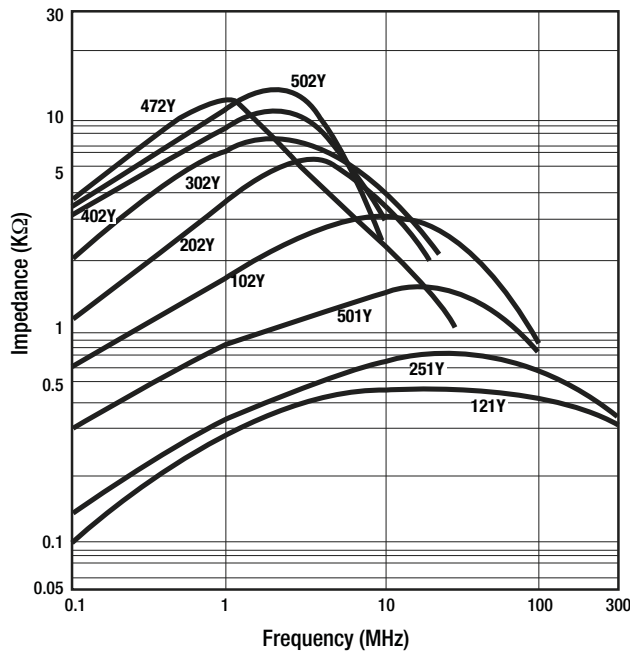
**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.  
 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](http://www.bourns.com/docs/legal/disclaimer.pdf)

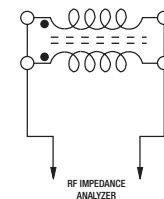
# SRF1006 Series - Line Filter

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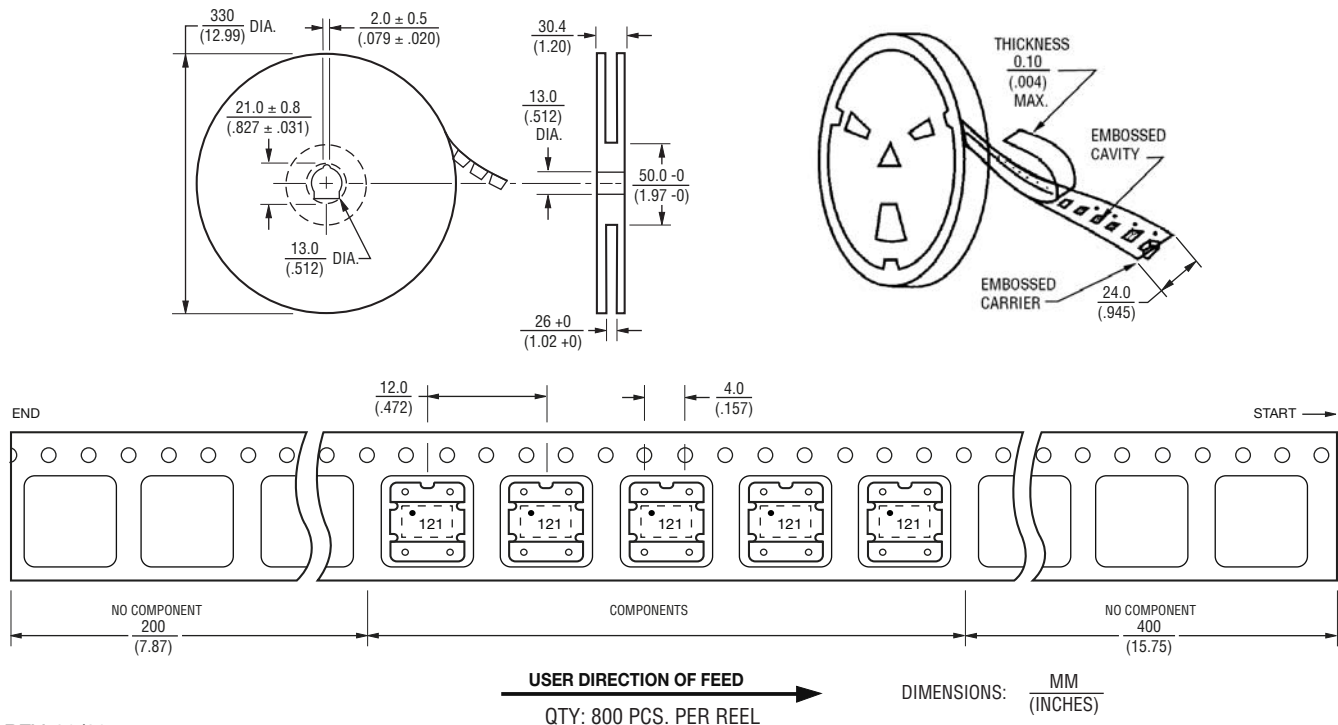
## Impedance Graph



MEASURING CIRCUIT



## Packaging Specifications



REV. 09/09

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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