



## Features

- Current rating up to 1.6 A
- Inductance range: 10 to 6500  $\mu$ H
- Frequency up to 300 MHz
- AEC-Q200 compliant
- RoHS compliant\* and halogen-free\*\*

## Applications

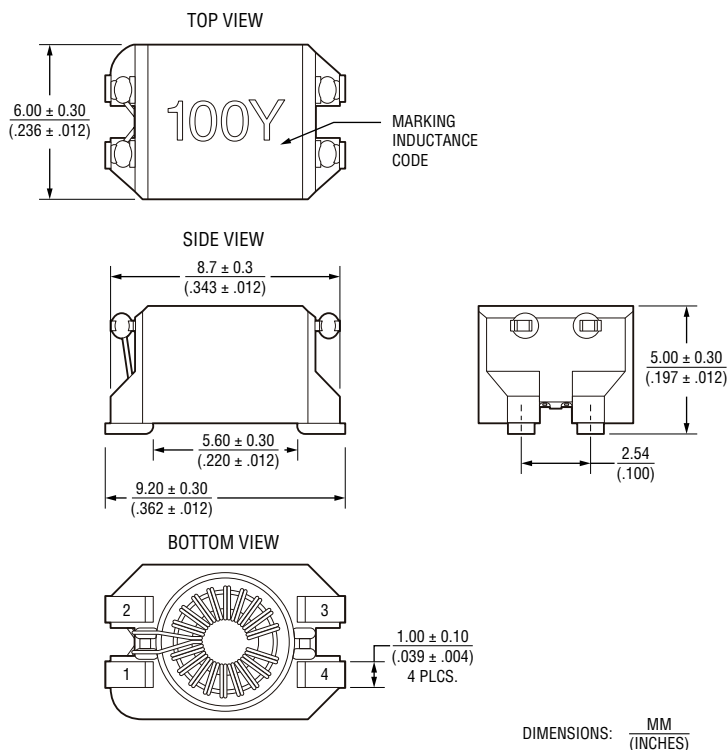
- EMI suppression
- Automotive systems

## SRF9005A Series – Line Filter

### Electrical Specifications @ 25 °C

Part Number	Inductance ( $\mu$ H)	Test Frequency / Voltage	DCR N1, N2 max. ( $\Omega$ )	Rated Voltage VDC (V)	Rated Current (A)	Impedance (Z)	
						Frequency Range (MHz)	Min. Value ( $\Omega$ )
SRF9005A-100Y	10 $\pm$ 30 %	0.1 V, 1 kHz	0.08	80	1.6	20 ~ 300	200
SRF9005A-250Y	25 $\pm$ 30 %		0.16		1.0	20 ~ 150	600
SRF9005A-400Y	40 $\pm$ 30 %		0.25		0.9	20 ~ 100	800
SRF9005A-500Y	50 $\pm$ 30 %		0.32		0.8	20 ~ 100	1500
SRF9005A-251Y	250 $\pm$ 50 %	5 mV, 100 kHz	0.13		1.2	3 ~ 20	600
SRF9005A-471Y	470 $\pm$ 50 %		0.14		1.1	2 ~ 20	1000
SRF9005A-501Y	500 $\pm$ 50 %		0.15		1.0	1 ~ 20	1000
SRF9005A-102Y	1000 $\pm$ 50 %		0.31		0.8	1 ~ 15	1500
SRF9005A-202Y	2000 $\pm$ 50 %		0.42		0.6	1 ~ 5	3000
SRF9005A-472Y	4700 $\pm$ 50 %		0.90		0.4	0.3 ~ 3	4000
SRF9005A-652Y	6500 $\pm$ 50 %		1.05		0.3	0.3 ~ 2	5000

### Product Dimensions



### Additional Information

Click these links for more information:



### General Specifications

Hi-Pot (N1 - N2)  
..... 500 VAC / 60 Hz, 3 mA, 3 sec.

Operating Temperature  
..... -40 °C to +105 °C  
(Temperature rise included)

Storage Temperature... -40 °C to +105 °C

Temperature Rise ..... 45 °C max. at Irms

Moisture Sensitivity Level..... 1

### Materials

Core Material ..... Ferrite

Wire ..... Enameled copper

Terminal Finish ..... Sn

Packaging ..... 1,000 pcs. per 13-inch reel

### How to Order

Model **SRF9005A - 100 Y**

Value Code (see table)

Tolerance



\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

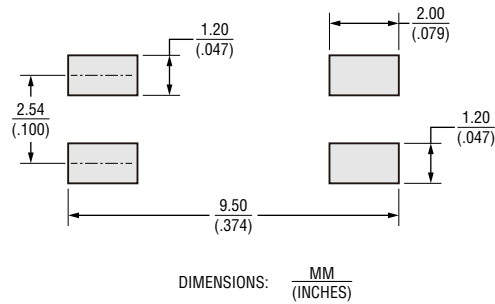
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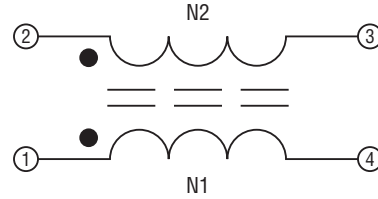
## SRF9005A Series – Line Filter

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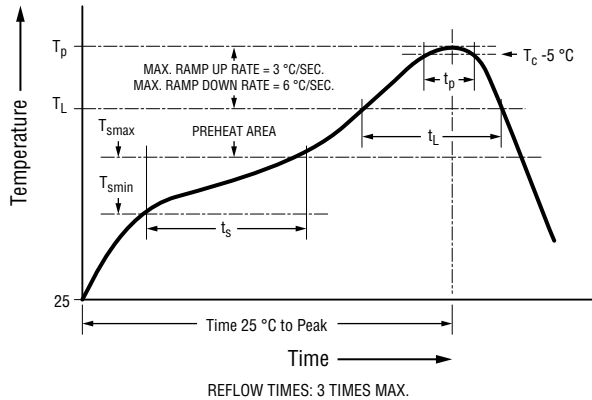
### Recommended Layout



### Schematic



### Soldering Profile



Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time(<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
Ramp-up Rate ( $T_L$ to $T_p$ )	3 °C/second max.
Liquidous temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217 °C 60-150 seconds
Peak package body temperature ( $T_p$ )	250 °C
Time ( $t_p$ ) at $T_c - 5$ °C ( $T_p$ should be equal to or less than $T_c$ )	< 30 seconds
Ramp-Down Rate ( $T_p$ to $T_L$ )	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

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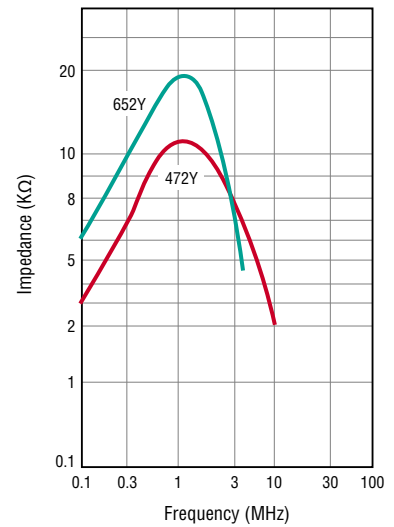
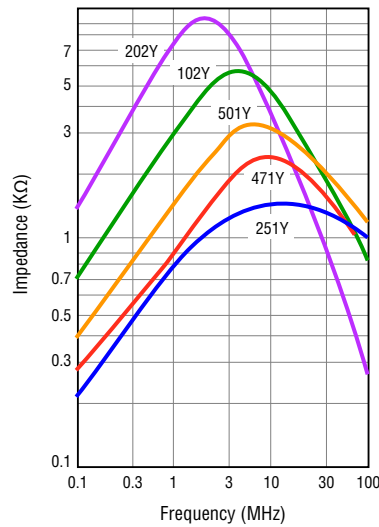
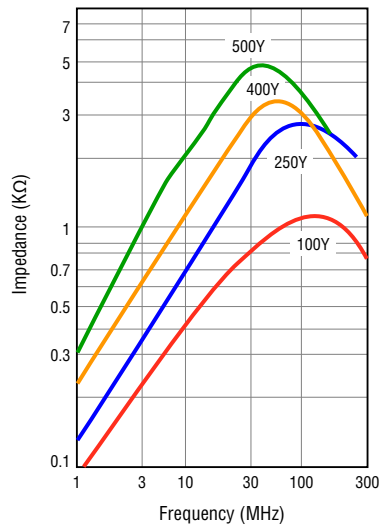
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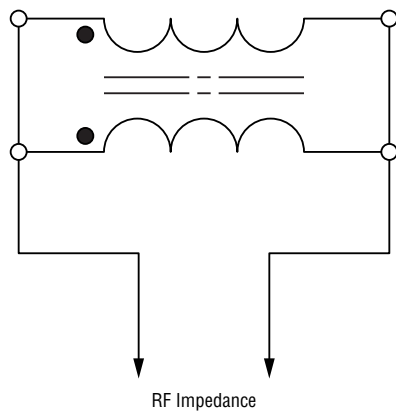
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### Typical Impedance vs. Frequency Curves



### Measuring Circuit



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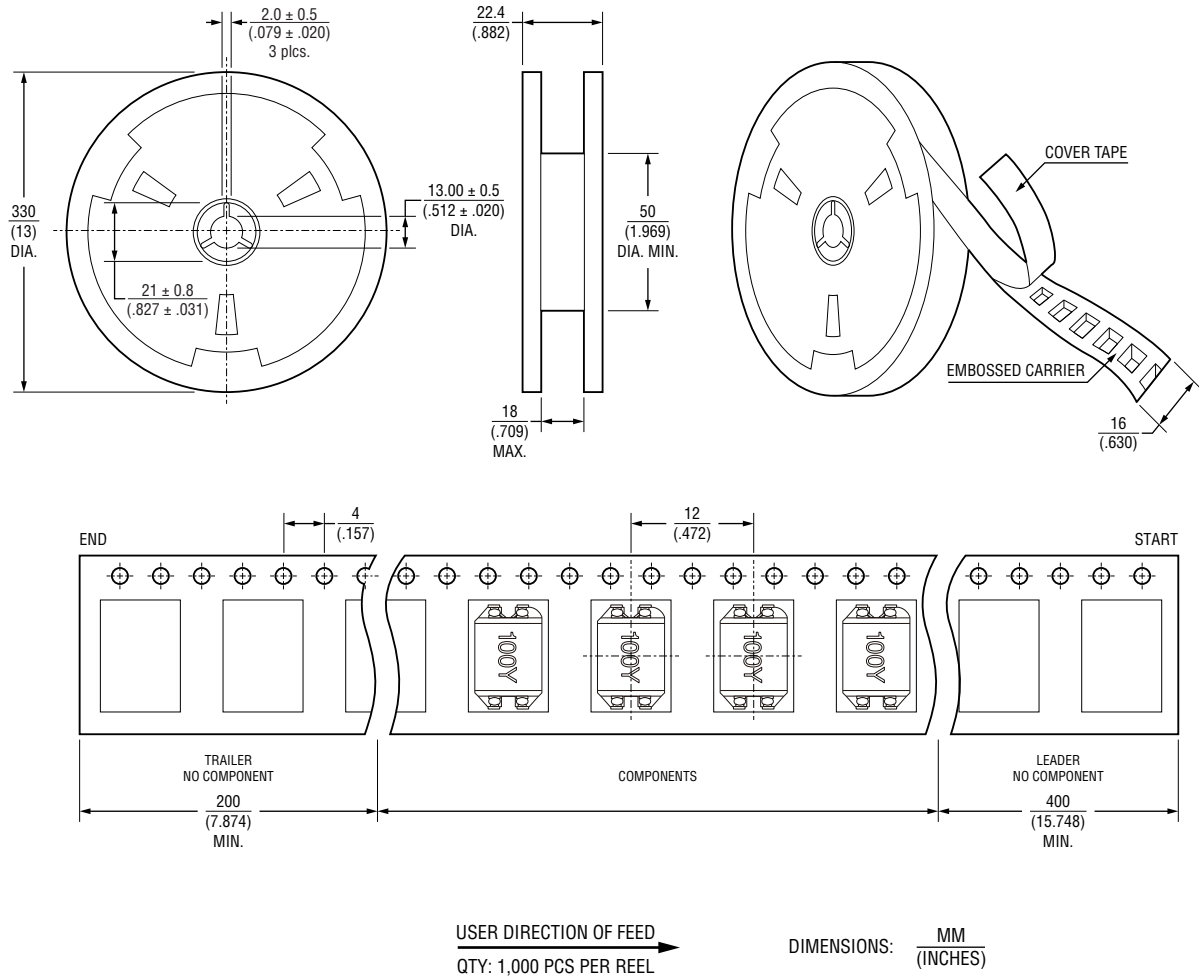
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### Packaging Specifications



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