

## Features

- Shielded construction – low radiation
- High current
- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

## Applications

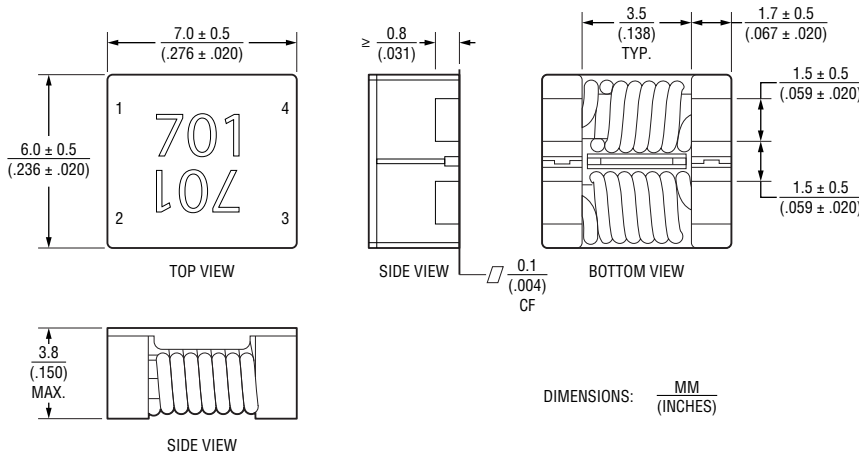
- Noise filters
- DC power lines
- Automotive systems

## SRF7038A Series – Common Mode Chokes

### Electrical Specifications at 25 °C

Part Number	Z (Ω) @ 100 MHz		L (μH) @ 100 kHz / 0.1 V	DCR (mΩ) Max.	Rated Current (A) Max.	Rated Voltage (VDC) Max.	Insulation Resistance (MΩ) Min.
	Min.	Typ.					
SRF7038A-700Y	40	70	0.83	5	15	80	10
SRF7038A-101Y	65	100	0.83	5	14	80	10
SRF7038A-141Y	100	140	1.3	10	9	80	10
SRF7038A-301Y	225	300	2.5	10	5	80	10
SRF7038A-501Y	400	500	2.9	10	5	80	10
SRF7038A-701Y	500	700	4.6	15	4	80	10
SRF7038A-102Y	800	1020	6.3	17	3	80	10
SRF7038A-132Y	910	1300	6.7	20	3	80	10
SRF7038A-302Y	2500	3000	18.2	50	1.5	80	10

### Product Dimensions



### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

### General Specifications

#### Operating Temperature

..... -40 °C to +125 °C  
(Temperature rise included)

Storage Temperature .. -40 °C to +125 °C

Temperature Rise .... 40 °C at rated Irms<sup>1</sup>

Moisture Sensitivity Level..... 1

ESD Classification (HBM)..... N/A

<sup>1</sup>Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

### Materials

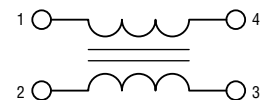
Core..... Ferrite

Wire..... Enameled copper

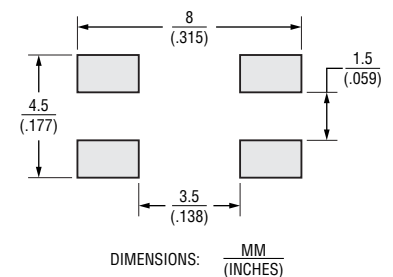
Terminal Finish..... SnCu

Packaging..... 1500 pcs. per 13-inch reel

### Electrical Schematic



### Recommended Layout



### How to Order

**SRF7038A - 700 Y**

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



**CALIFORNIA WARNING:** Can expose you to lead, a carcinogen and reproductive toxicant. See [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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

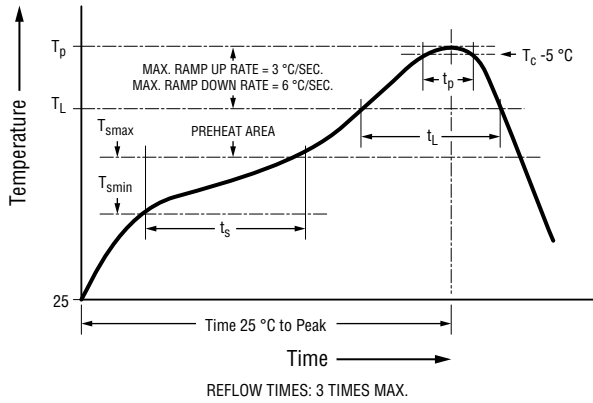
\*\*Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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# SRF7038A Series – Common Mode Chokes



## Soldering Profile

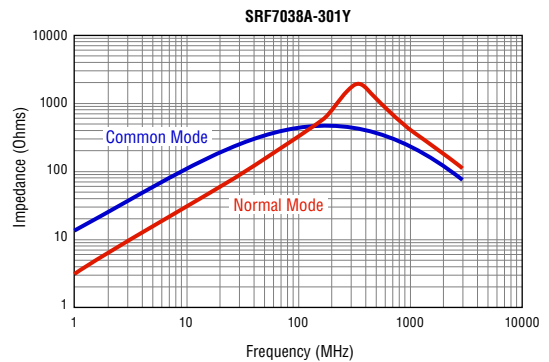
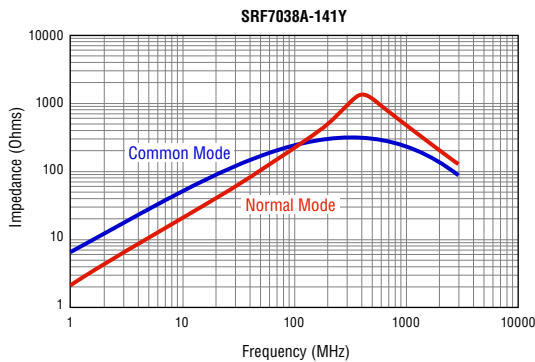
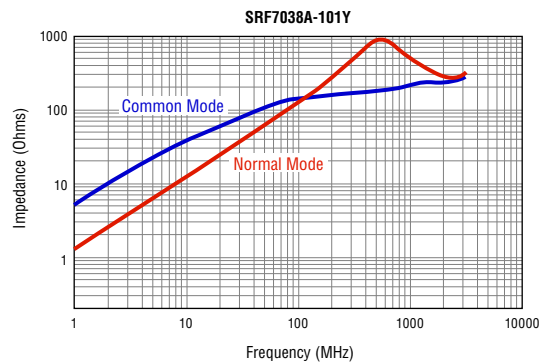
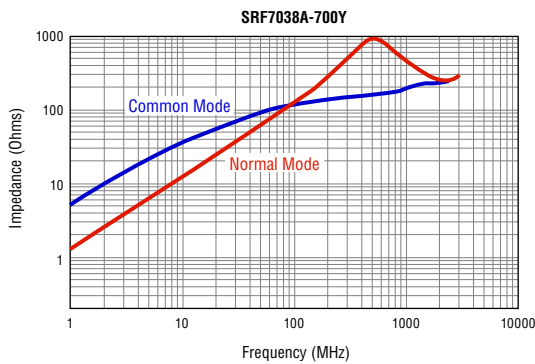


Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> <li>- Temperature Min. (<math>T_{smin}</math>)</li> <li>- Temperature Max. (<math>T_{smax}</math>)</li> <li>- Time (<math>t_s</math>) from <math>T_{smin}</math> to <math>T_{smax}</math></li> </ul>	150 °C 200 °C 60-120 seconds
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.

**NOTE:**

The part has been tested under this reflow condition. Deviations from this, especially with higher temperatures or longer durations, could impact performance.

## Typical Impedance vs. Frequency Curves



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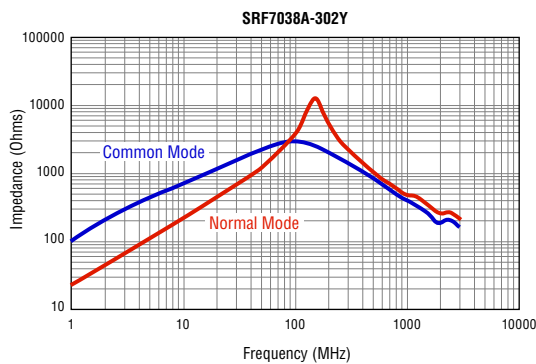
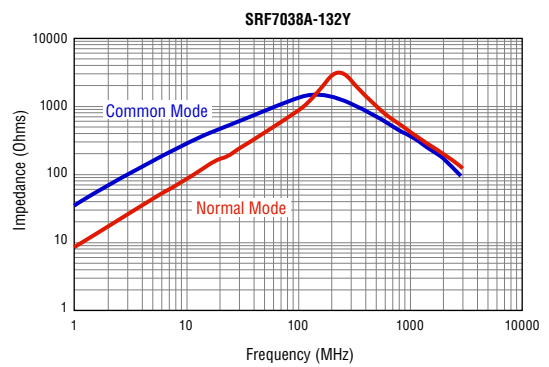
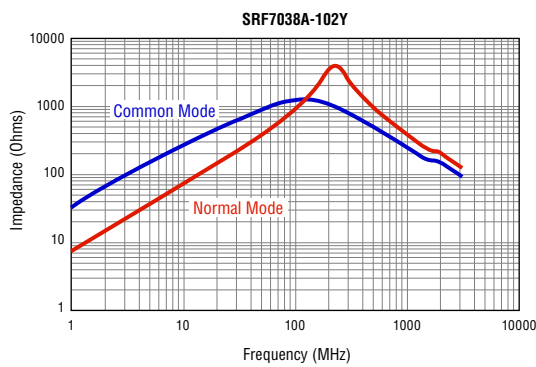
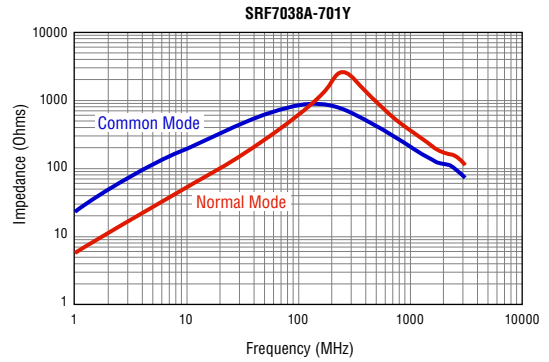
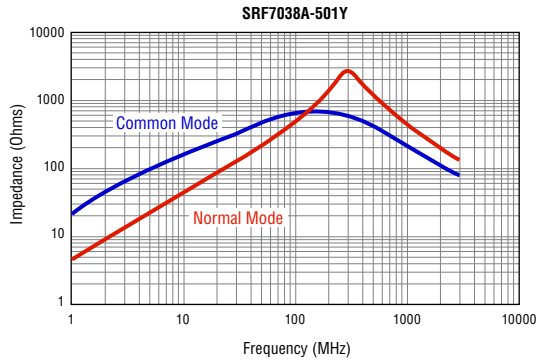
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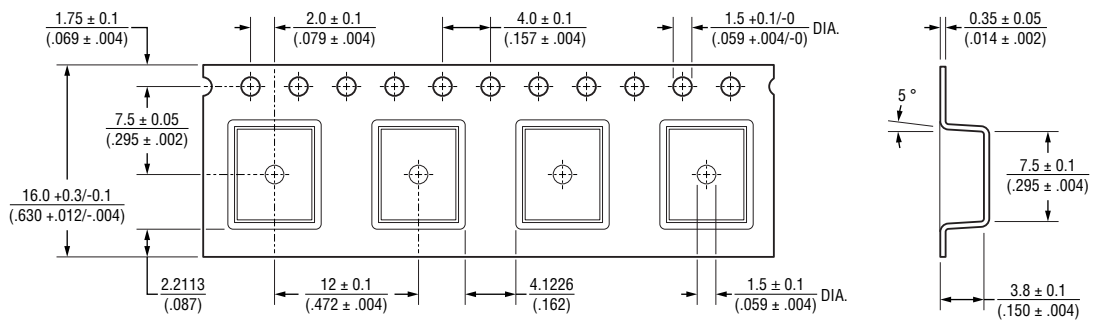
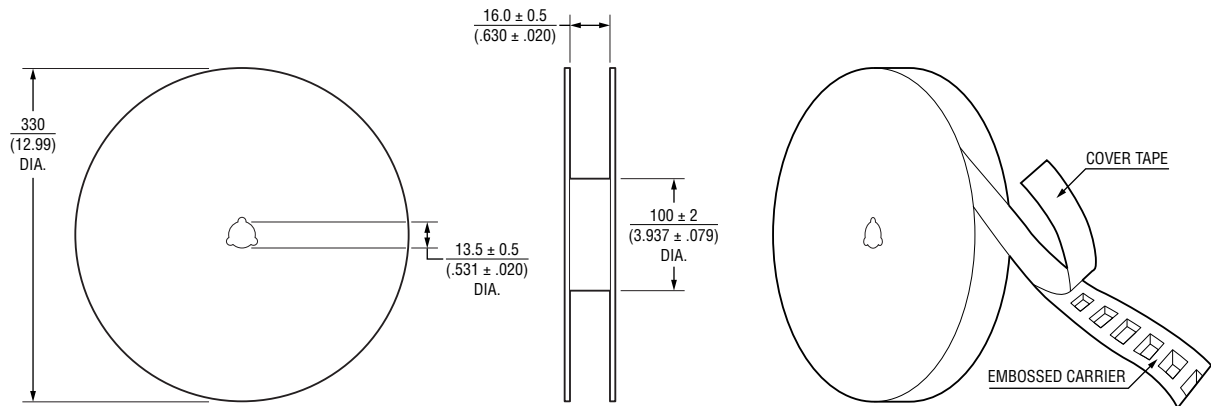
## Typical Impedance vs. Frequency Curves (continued)



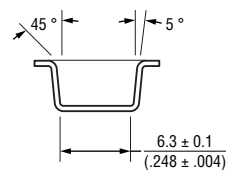
# SRF7038A Series – Common Mode Chokes

**BOURNS®**

## Packaging Specifications



USER DIRECTION OF FEED →  
QTY: 1,500 PCS PER REEL



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

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