SPECIFICATION HISTORY LIST

PROD. NAME	Wire Wound Power Common Mode Filter	PART NO.	SRF7038A SERIES

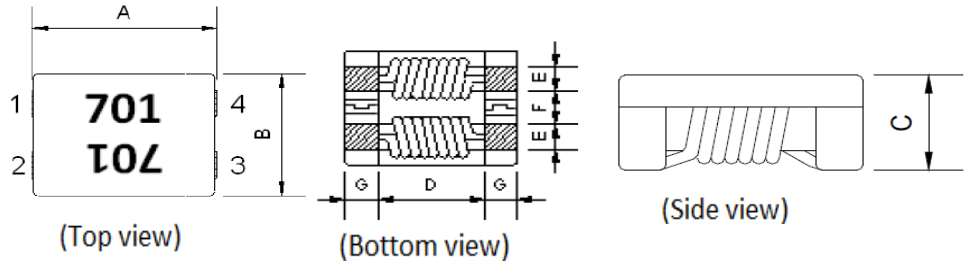
REV.	DATE	DESCRIPTION	APPROVED	CHECKED	DRAWN
A	12/31/2019	Released	楊祥忠	羅敏汎	何玉蓮

BOURNS INDUCTIVE COMPONENTS

SPECIFICATION

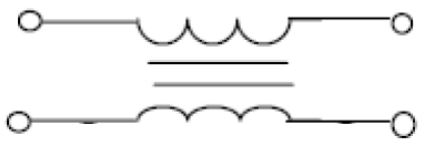
PROD. NAME	Wire Wound Power Common Mode Filter	PART NO.	SRF7038A SERIES
		REF	12/31/2019

I. CONFIGURATION & DIMENSIONS :

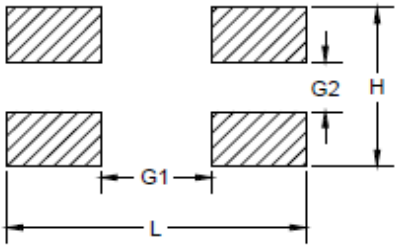


Unit: mm
A: 7.0±0.5
B: 6.0±0.5
C: 3.8 max.
D: 3.5 typ.
E: 1.5±0.5
F: 1.5±0.5
G: 1.7±0.5

II. SCHEMATIC DIAGRAM:



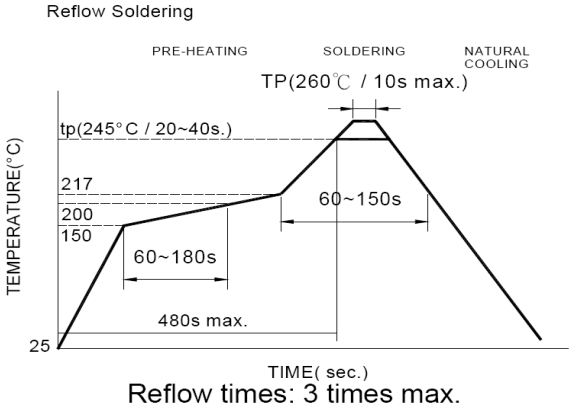
III. RECOMMENDED PAD LAYOUT:



Unit: mm
L: 8.0
H: 4.5
G1: 3.5
G2: 1.5

IV. GENERAL SPECIFICATION :

a. Operating temperature: -40~+125℃
(Including self - temperature rise)
b. Storage temperature: -40~+125℃ (on board)
c Qualification to AEC-Q200



Reflow times: 3 times max.

SPECIFICATION

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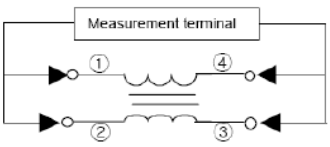
V. ELECTRICAL CHARACTERISTICS :

PART NO.	Impedance (Ω)		DC Resistance (mΩ) max. (1 line)	Rated Current (A) max.	Rated Volt. (Vdc) max.	Insulation Resistance (MΩ) min.
	min.	typ.				
SRF7038A-400Y	40	70	5	15	80	10
SRF7038A-650Y	65	100	5	14	80	10
SRF7038A-101Y	100	140	10	9	80	10
SRF7038A-301Y	225	300	10	5	80	10
SRF7038A-501Y	400	500	10	5	80	10
SRF7038A-701Y	500	700	15	4	80	10
SRF7038A-102Y	800	1020	17	3	80	10
SRF7038A-132Y	910	1300	20	3	80	10

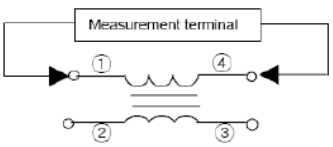
Note:

1. Test frequency: 100MHz
2. All test data referenced to 25℃ ambient.
3. Rated Current: ΔT 40℃Max

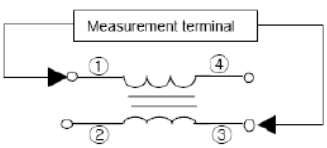
Impedance



DC Resistance



Insulation Resistance



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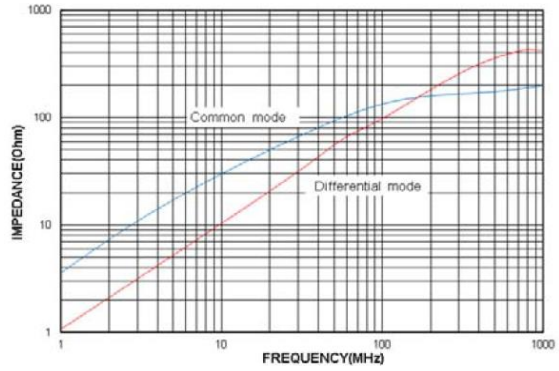
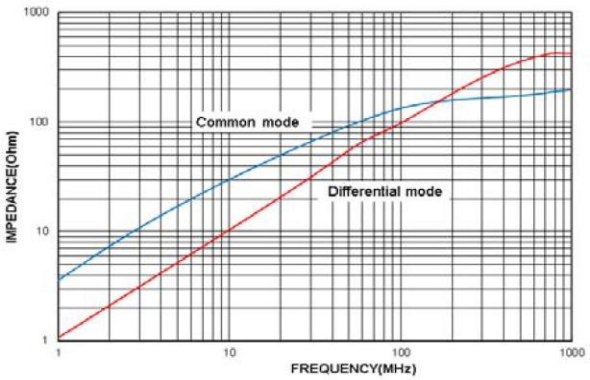
VI. TYPICAL PERFORMANCE CURVES :

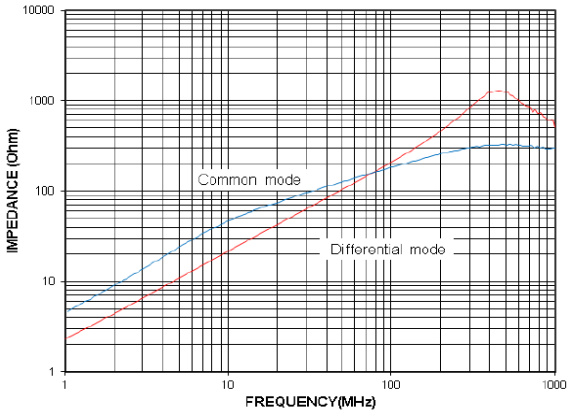
SRF7038A-400Y



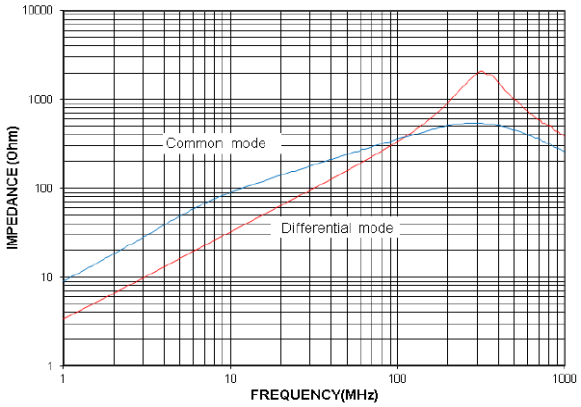
SRF7038A-650Y



SRF7038A-101Y



SRF7038A-301Y



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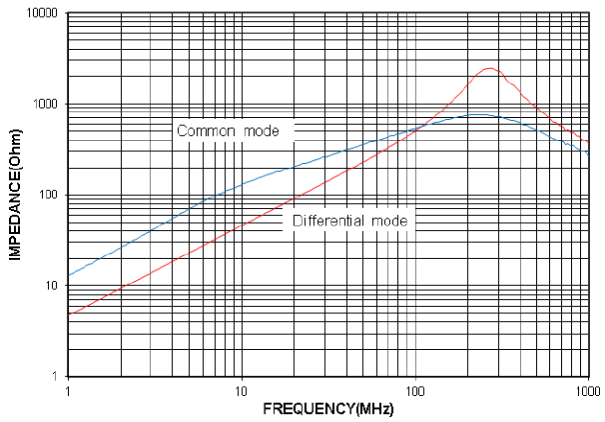
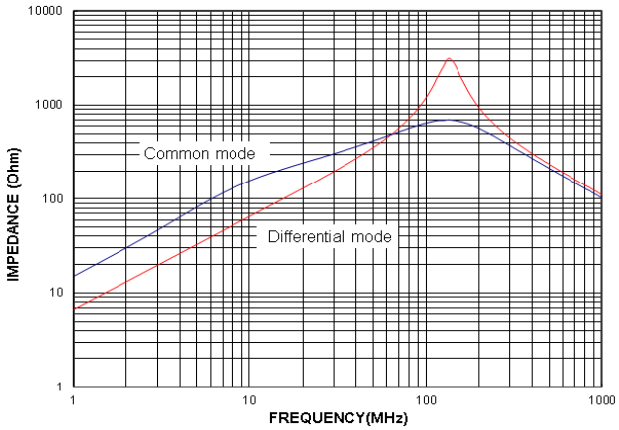
VI. TYPICAL PERFORMANCE CURVES :

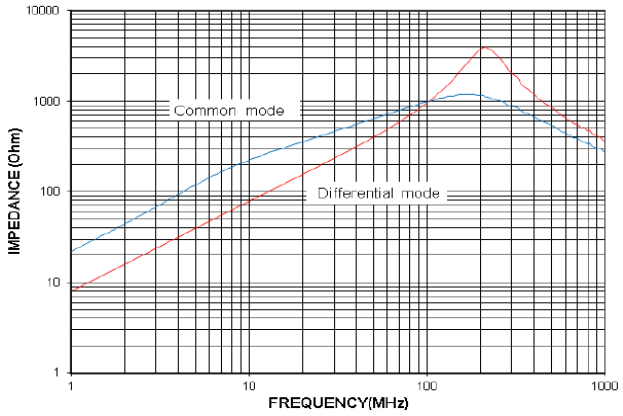
SRF7038A-501Y



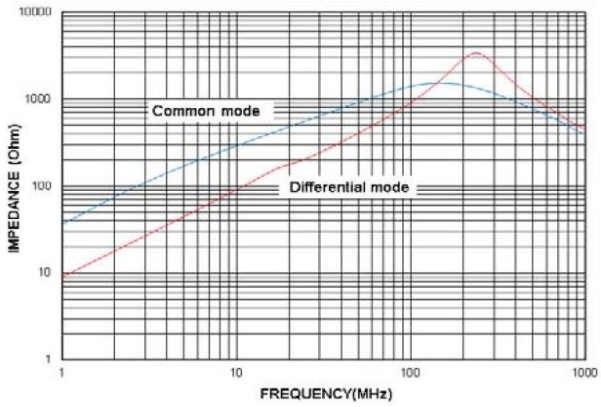
SRF7038A-701Y



SRF7038A-102Y



SRF7038A-132Y



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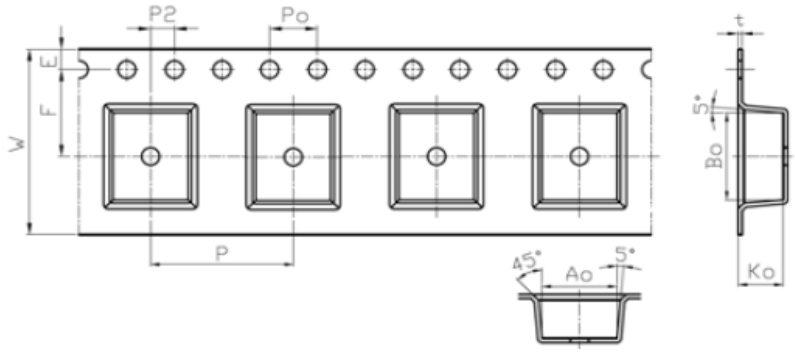
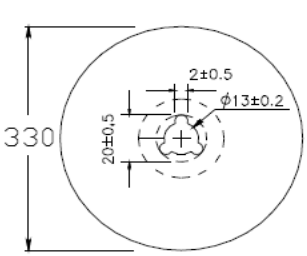
VII. PACKAGING INFORMATION

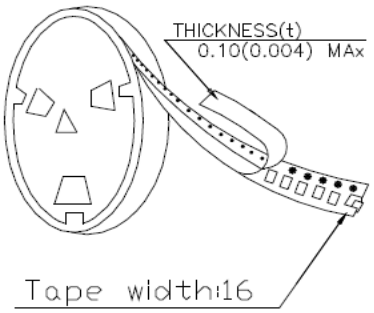
(1) Tape dimensions



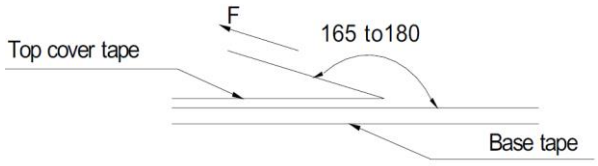
W(mm)	Bo(mm)	Ao(mm)	Ko(mm)	P0(mm)	P2(mm)	F(mm)	E(mm)	P(mm)	t(mm)
16.00+0.3/-0.1	7.50±0.1	6.3±0.1	3.8±0.1	4.0±0.1	2.0±0.1	7.5±0.1	1.75±0.1	12.0±0.1	0.35±0.05

(2) Reel dimensions





(3)Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

(4) Packaging Quantity

Reel	1500

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VIII. RELIABILITY TEST：

Test item	Specification and Requirement	Test Conditions
High Temperature Exposure(Storage) AEC-Q200	Appearance: No damage. Impedance: within ±15% of initial value Inductance: within ±10% of initial value Q: Shall not exceed the specification value. RDC: within ±15% of initial value and shall not exceed the specification value	Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020D Classification Reflow Profiles) Temperature: 125±2°C Duration: 1000hrs Min. Measured at room temperature after placing for 24±2 hrs
Temperature Cycling AEC-Q200		Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020D Classification Reflow Profiles) Condition for 1 cycle Step1: -40±2°C, 30min Min. Step2: 125±2°C, transition time 1min MAX. Step3: 125±2°C, 30min Min. Step4: Low temp. transition time 1min MAX. Number of cycles: 1000 Measured at room temperature after placing for 24±2 hrs
Moisture Resistance		Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020D Classification Reflow Profiles) 1. Baked at 50°C for 25hrs, measured at room temperature after placing for 4 hrs. 2. Raise temperature to 65±2°C, 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs. 3. Raise temperature to 65±2°C, 90-100%RH in 2.5hrs, and keep 3 hours, cool down to 25°C in 2.5hrs, keep at 25°C for 2hrs then keep at -10°C for 3hrs 4. Keep at 25°C, 80-100%RH for 15min and vibrate at the frequency of 10 to 55Hz to 10Hz, measure at room temperature after placing for 1 to 2 hrs.
Biased Humidity (AEC-Q200)		Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020D Classification Reflow Profiles) Humidity: 85±3% R.H. Temperature: 85°C±2°C Duration: 1000hrs Min with 100% rated current. Measured at room temperature after placing for24±2 hrs
High Temperature Operational Life (AEC-Q200)		Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020DClassification Reflow Profiles) Temperature: 155±2°C(Inductor) Duration: 1000hrs Min. with 100% rated current. Measured at room temperature after placing for 24±2 hrs
External Visual	Appearance: No damage.	Inspect device construction, marking and workmanship. Electrical Test not required.
Physical Dimension	According to the product specification size measurement	According to the product specification size measurement
Resistance to Solvents	Appearance: No damage.	Add aqueous wash chemical - OKEM clean or equivalent.
Physical Dimension	According to the product specification size measurement	According to the product specification size measurement
Mechanical Shock	Appearance: No damage. Impedance: within ±15% of initial value Inductance: within ±10% of initial value Q: Shall not exceed the specification value. RDC: within ±15% of initial value and shall not exceed the specification value	<table><tr><th>Type</th><th>Peak value (g's)</th><th>Normal duration (D) (ms)</th><th>Wave form</th><th>Velocity change (Vi)ft/sec</th></tr><tr><td>SMD</td><td>100</td><td>6</td><td>Half-sine</td><td>12.3</td></tr><tr><td>Lead</td><td>100</td><td>6</td><td>Half-sine</td><td>12.3</td></tr></table> shocks in each direction along 3 perpendicular axes.

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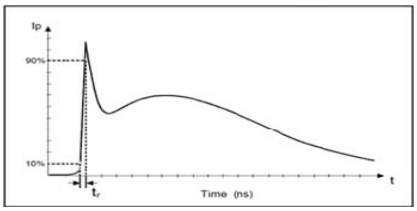
VIII. RELIABILITY TEST：

<table>
<tr><th>Test item</th><th>Specification and Requirement</th><th>Test Conditions</th></tr>
<tr><td>Vibration</td><td rowspan="3">Appearance: No damage.
Impedance: within ±15% of initial value
Inductance: within ±10% of initial value
Q: Shall not exceed the specification value.
RDC: within ±15% of initial value and shall not exceed the specification value</td><td>(IPC/JEDEC J-STD-020D Classification Reflow Profiles)
Oscillation Frequency: 10 ~ 2k ~ 10Hz for 20 minute
Equipment: Vibration checker
Total Amplitude: 1.52mm±10%
Testing Time: 12 hours(20 minutes, 12 cycles each of 3 orientations)。</td></tr>
<tr><td>Resistance to Soldering Heat</td><td><table><tr><th>Temperature(℃)</th><th>Time(s)</th><th>Temperature ramp/immersion and emersion rate</th><th>Number of heat cycles</th></tr><tr><td>260±5(soldertemp)</td><td>10±1</td><td>25mm/s ±6 mm/s</td><td>1</td></tr></table></td></tr>
<tr><td>Thermal shock
(AEC-Q200)</td><td>Preconditioning: Run through IR reflow for 2 times.
(IPC/JEDEC J-STD-020D Classification Reflow Profiles)
Condition for 1 cycle
Step1: -40±2℃, 15±1min
Step2: 125±2℃, within 20Sec.
Step3: 125±2℃, 15±1min
Number of cycles: 300
Measured at room temperature after placing fo24±2hrs</td></tr>
<tr><td>ESD</td><td>Appearance: No damage.</td><td> 
</td></tr>
<tr><td>Solderability</td><td>More than 95% of the terminal electrode should be covered with solder。</td><td>Steam Aging: 16 hours ± 15 min
Preheat: 150℃,60sec.
Solder: Sn96.5% Ag3% Cu0. 5%
Temperature: 245±5℃。
Flux for lead free: Rosin. 9.5%。
Dip time: 4±1sec.
Depth: completely cover the termination</td></tr>
<tr><td>Electrical Characterization</td><td>Refer Specification for Approval</td><td>Summary to show Min, Max, Mean and Standard deviation .</td></tr>
<tr><td>Flammability</td><td>Electrical Test not required.</td><td>V-0 or V-1 are acceptable.</td></tr>
</table>

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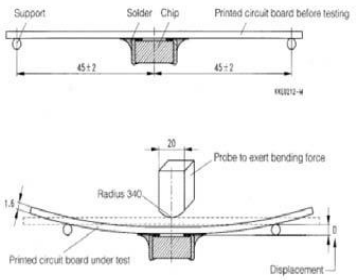
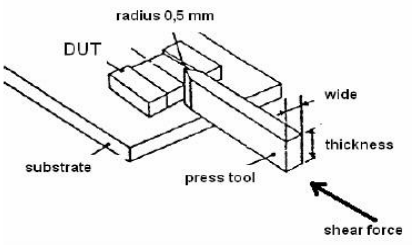
VIII. RELIABILITY TEST：

Test item	Specification and Requirement	Test Conditions
Board Flex	Appearance: No damage	Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020DClassification Reflow Profiles) Place the 100mm X 40mm board into a fixture similar to the one shown in below Figure with the component facing down. The apparatus shall consist of mechanical means to apply a force which will bend the board (D) x = 2 mm minimum. The duration of the applied forces shall be 60 (+ 5) sec. The force is to be applied only once to the board. 
Terminal Strength(SMD)		Preconditioning: Run through IR reflow for 2 times. (IPC/JEDEC J-STD-020D Classification Reflow Profiles) With the component mounted on a PCB with the device to be tested, apply a 17.7N (1.8 Kg) force to the side of a device being tested. This force shall be applied for 60 +1 seconds. Also the force shall be applied gradually as not to apply a shock to the component being tested. 

单击下面可查看定价，库存，交付和生命周期等信息

>>Bourns(伯恩斯)