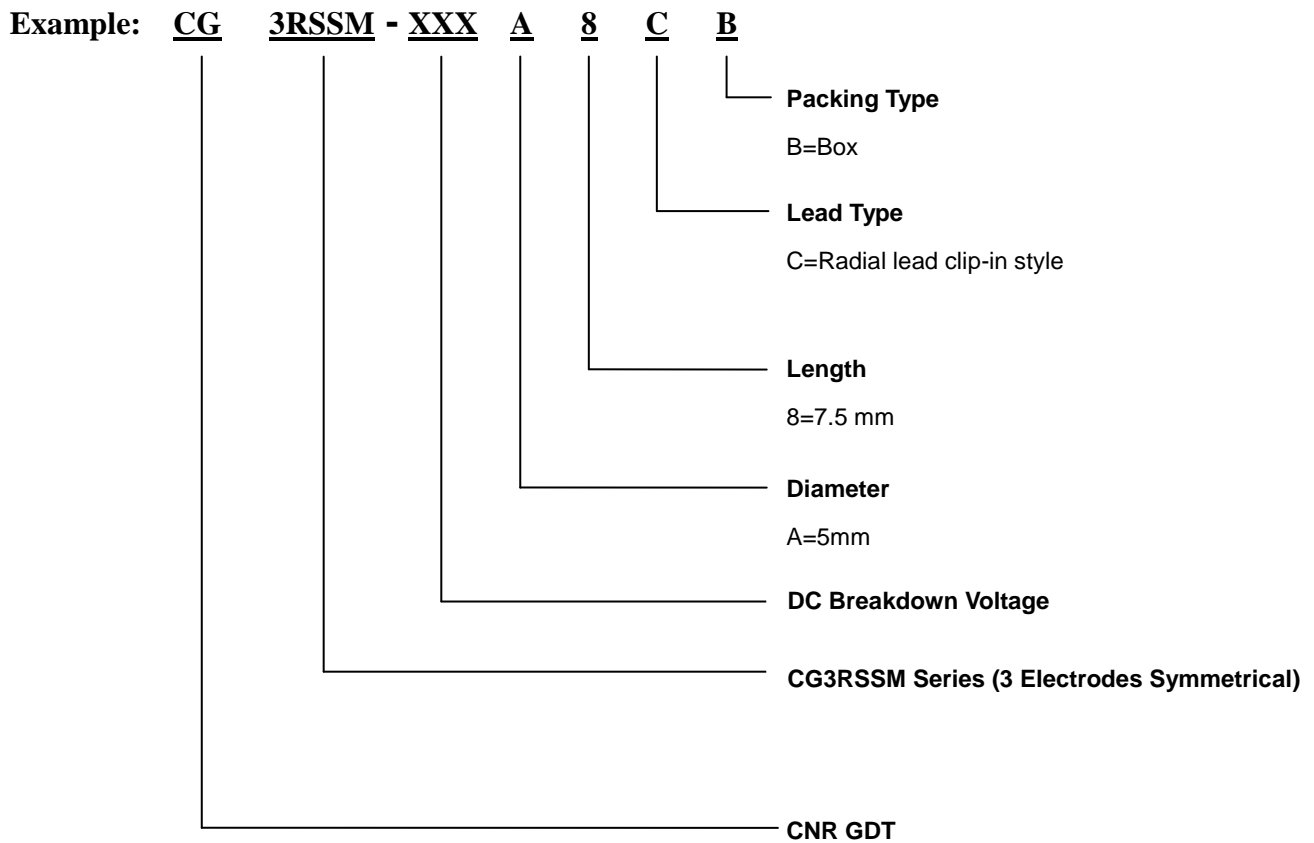




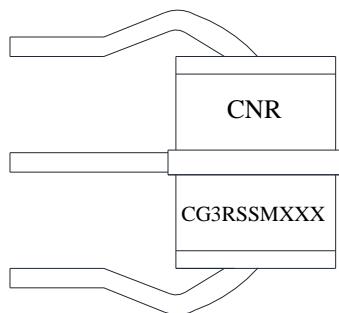
### 1. Scope:

This Specification covers the CNR GDT surge protector series for manufacturing gas tube arrests.

### 2. Part Number



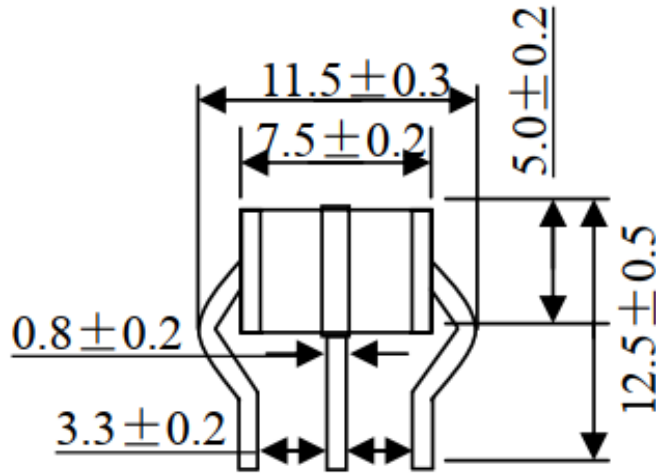
### 3. Marking



XXX = DC Breakdown Voltage



### 4. Production Dimensions (mm)

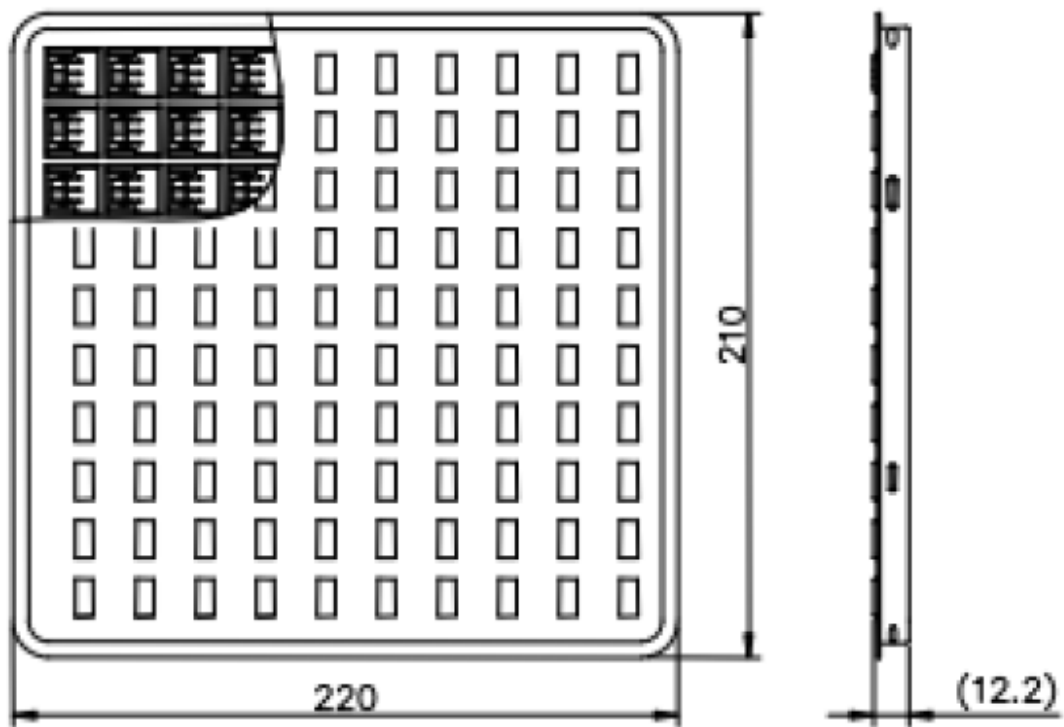


### 5. Electrical Specification

Model Name	DC Breakdown Voltage	Maximum Impulse Breakdown Voltage		Maximum Impulse Discharge Current (8/20 $\mu$ s)		Impulse Life (10/1000 $\mu$ s)	Alternating Discharge Current		DC Holdover Voltage	Minimum Insulation Resistance		Maximum Capacitance (1MHz)		
		100V/ $\mu$ s	1KV/ $\mu$ s	1 time	10 times		200A	50Hz, 1Sec		Single 9 cycles	<150ms		(G $\Omega$ )	(V <sub>DC</sub> )
		(V)	(V)	(V)	(KA)		(times)	(A)		(V)	(G $\Omega$ )		(V <sub>DC</sub> )	(pF)
CG3RSSM-230	230 $\pm$ 20%	600	700	10	5	300	5	20	135	>1	50	<1		
CG3RSSM-250	250 $\pm$ 20%	600	700	10	5	300	5	20	135	>1	50	<1		
CG3RSSM-300	300 $\pm$ 20%	650	750	10	5	300	5	20	135	>1	100	<1		
CG3RSSM-350	350 $\pm$ 20%	650	750	10	5	300	5	20	135	>1	100	<1		
CG3RSSM-470	470 $\pm$ 20%	800	900	10	5	300	5	20	135	>1	250	<1		
CG3RSSM-600	600 $\pm$ 20%	900	1000	10	5	300	5	20	135	>1	250	<1		

Approvals - UL497B Recognized, File E220380

## 6. Packaging



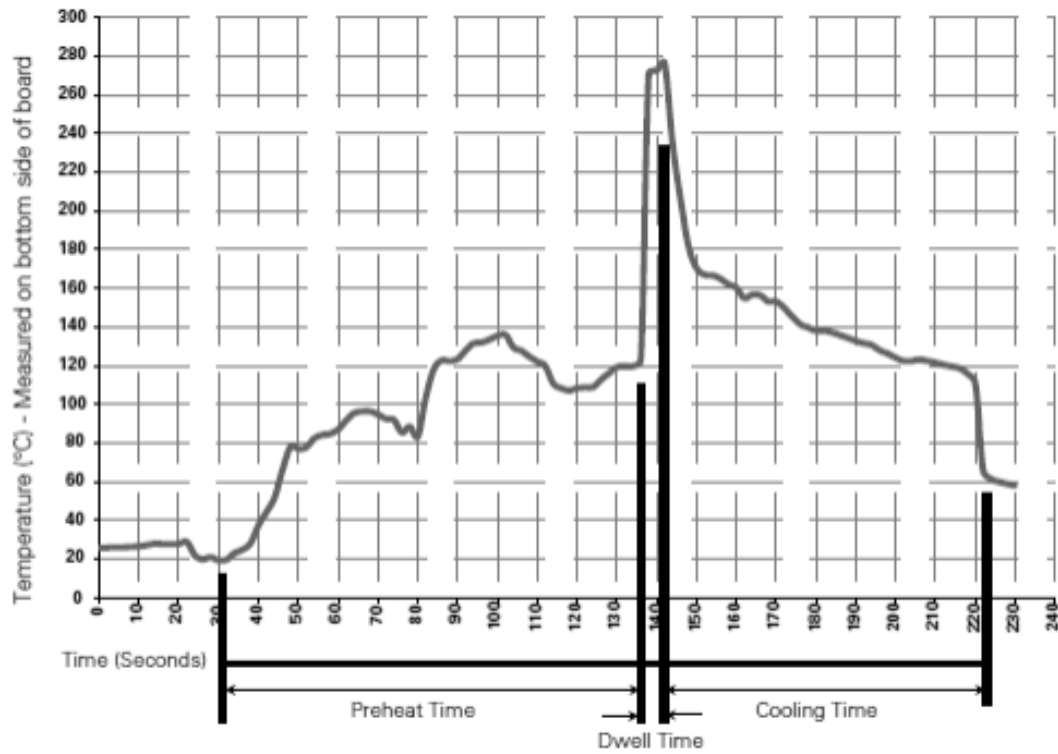
Part Number	Component Package	Quantity
CG3RSSM series	5*7.5	500

## 7. Storage Environment

1. Operate temperature: -40°C to 90°C
2. Storage temperature: -40°C to 115°C
3. Relative humidity:  $\leq 75\%RH$
4. Do not store in an environment with corrosive gas or direct sunlight.

- Storage period: 1 year

## 8. Soldering Parameters-wave Soldering



WAVE PARAMETER	LEAD-FREE RECOMMENDATION
Preheat	
Temperature Minimum :	100°C
Temperature Minimum :	150°C
Preheat time :	60-180 seconds
Solder Pot Temperature :	280°C Maximum
Solder Dwell Time :	2-5 seconds

**9. Electrical Terms and Definitions**

<b>Item</b>	<b>Test Condition / Description</b>	<b>Requirement</b>
<b>DC Breakdown Voltage</b>	The voltage measured at a rise time of 100v/s.	
<b>Maximum Impulse Breakdown Voltage</b>	The maximum breakdown voltage at rise times of 100v/us and 1000v/us.	
<b>Maximum Impulse Discharge Current</b>	The maximum current applying a waveform of 8/20us that can be applied across the terminals of the gas tube without causing the gas tube to change more than $\pm 25\%$ from its initial measured DC breakdown voltage. Dwell time between pulses is 3 minutes.	
<b>Impulse Life</b>	The minimum number of impulses of a specified waveform and peak current which a gas tube will conduct without causing the gas tube to change more than $\pm 25\%$ from its initial measured DC breakdown voltage. Dwell time between pulses is 1-2 minutes.	To meet the specified value
<b>Alternating Discharge Current</b>	Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. DC breakdown voltage may not change more than $\pm 25\%$ from its initial measured DC breakdown voltage. IR > $10^8$ ohms (-20%, +30% for 70 – 90V).	
<b>DC Holdover Voltage</b>	The maximum DC voltage across the two terminals of the gas tube under which it may be expected to return to the high impedance state after the gas tube breakdown.	
<b>Capacitance</b>	The capacitance of a gas tube shall be measured each terminal to each other terminal. Test frequency: 1MHz In measurements involving 3-electrode gas tubes, the terminal not being tested shall be connected to a ground plane.	