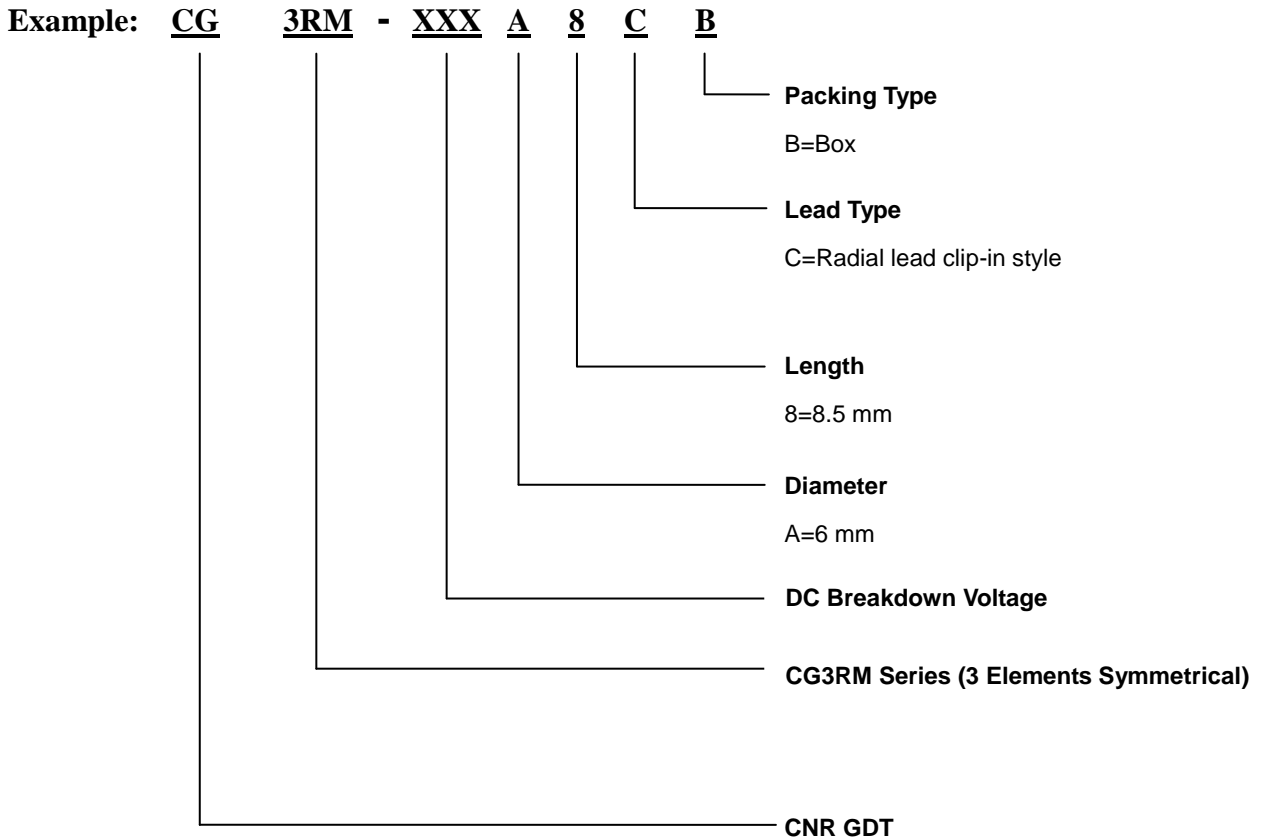


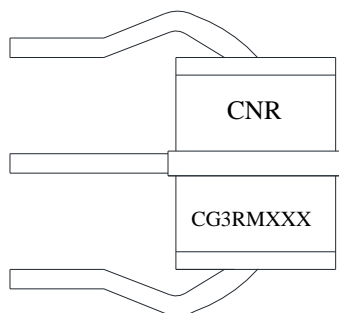
**1. Scope:**

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

**2. Part Number**



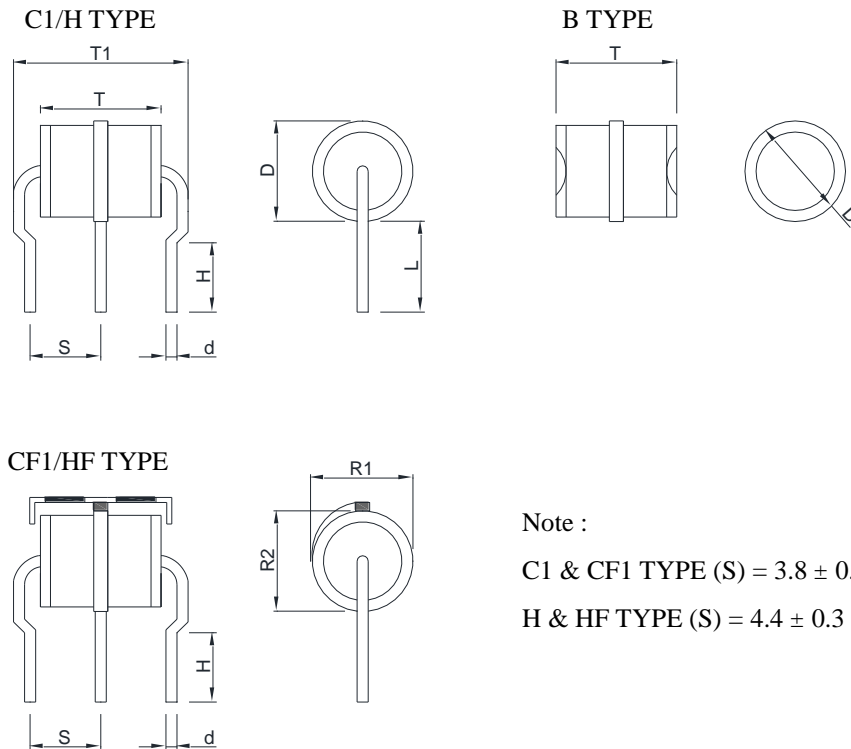
**3. Marking**



XXX = DC Breakdown Voltage



#### 4. Production Dimensions (mm)



Item	Dimension (mm)	
	Spec	Tolerance
D	6	+0.2/-0.5
T	8.5	±0.5
T1	11.5	+0.8/-0.5
L	7.5	±0.5
H	4.5	Min
S	3.8	±0.3
d	0.8	±0.05
R1	6.3	±0.3
R2	7.6	±0.4

Note :

C1 & CF1 TYPE (S) = 3.8 ± 0.3

H & HF TYPE (S) = 4.4 ± 0.3

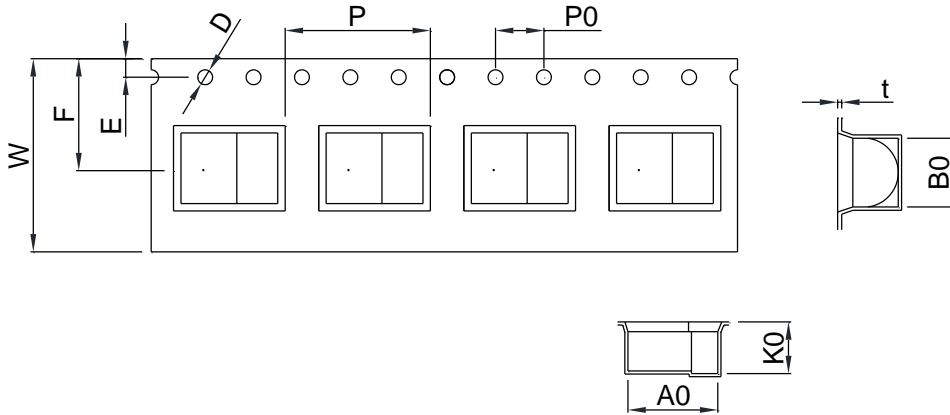
#### 5. Electrical Specification

Model Name	DC Breakdown Voltage	Maximum Impulse Breakdown Voltage		Maximum Impulse Discharge Current (8/20µs)	Impulse Life (10/1000µs)	Alternating Discharge Current	DC Holdover Voltage	Minimum Insulation Resistance	Maximum Capacitance (1MHz)
		100V/µs	1KV/µs						
		(100V/S)	(V)						
CG3RM-090	90±20%	750	850	10	100	5	52	1	2
CG3RM-145	145±20%	750	850	10	100	5	52	1	2
CG3RM-200	200±20%	600	700	10	100	10	135	1	2
CG3RM-230	230±20%	600	700	10	100	10	135	1	2
CG3RM-250	250±20%	600	700	10	100	10	135	1	2
CG3RM-350	350±20%	650	800	5	100	5	135	1	2
CG3RM-400	400±20%	700	900	5	100	5	135	1	2
CG3RM-420	420±20%	700	900	5	100	5	135	1	2
CG3RM-470	470±20%	800	950	5	100	5	135	1	2
CG3RM-600	600±20%	900	1100	5	100	5	135	1	2



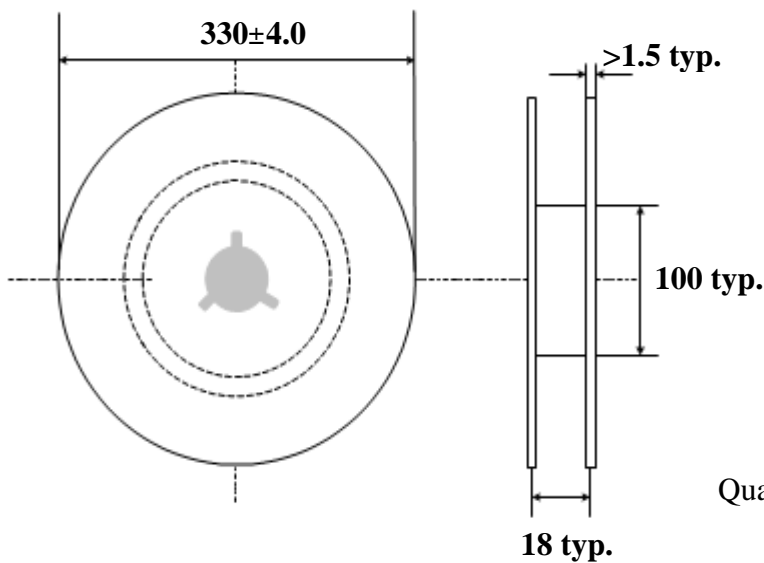
### 6. Packaging

Taping & Reel



Item	Spec
P	12.0±0.1
P0	4.0±0.1
W	16.0±0.3
F	11.5±0.1
E	1.75±0.1
D	Φ1.55±0.05
A0	7.4±0.1
B0	5.4±0.1
K0	5.54+0.2/-0.1
t	0.5±0.05

Unit - mm



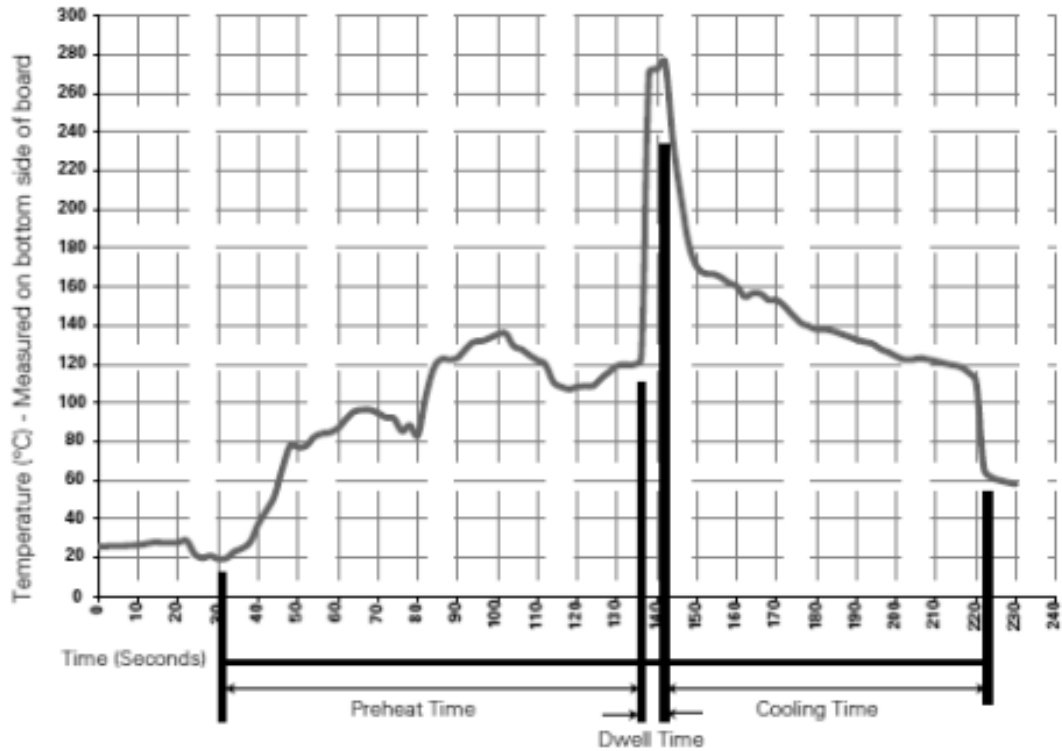
Quantity : 900 pcs per reel (13")  
 3 reels per inner box  
 5 inners box per car  
 13500 pcs per full carton

### 7. Storage Environment

1. Operate temperature: -40°C to 90°C
2. Storage temperature: -40°C to 115°C
3. Relative humidity: ≤ 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.	To meet the specified value
<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.	
<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.	