

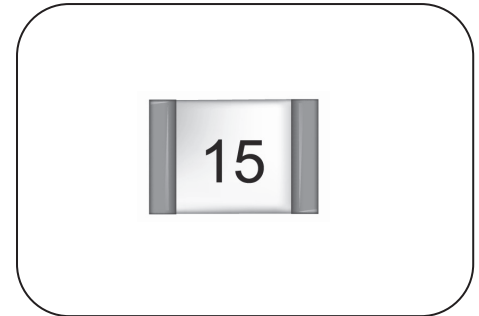
# Gas Discharge Tube: GS2 Series



## SMD L3.2\*W1.6\*H1.6 mm Type

### ■ Features

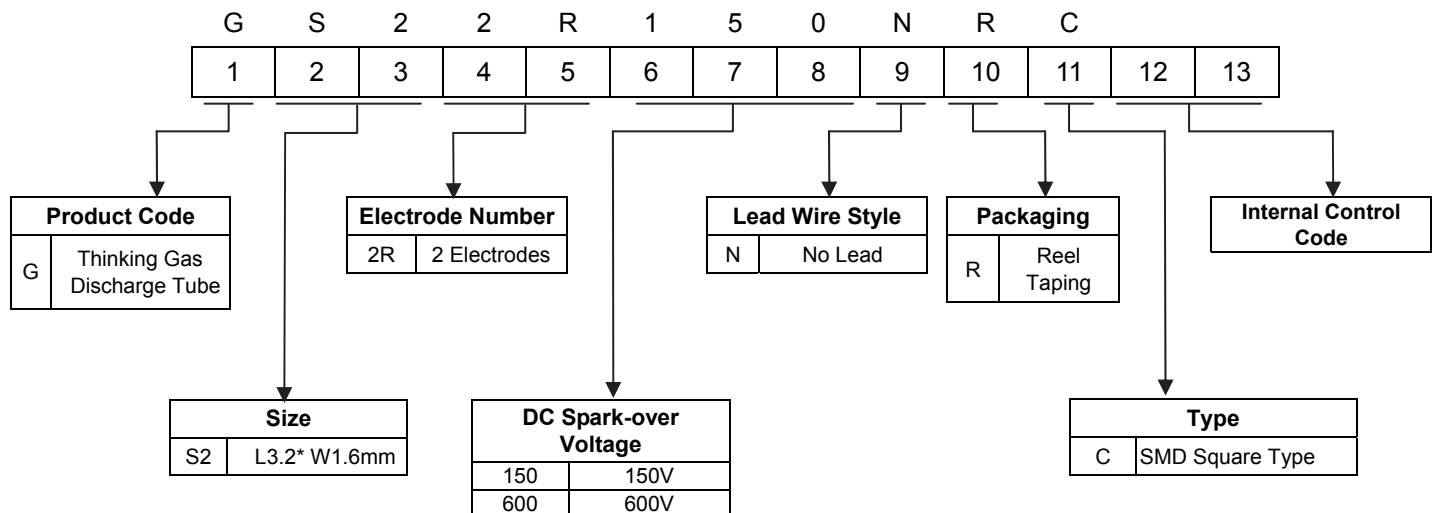
1. RoHS & HF compliant
2. SMD Structure
3. DC Spark-over voltage: 150~600V
4. Low Capacitance
5. Agency Recognition : UL
6. Operating temperature : -30°C ~ +85°C  
Storage temperature: -40°C ~ +115°C



### ■ Recommended Applications

1. Cable Modem
2. xDSL
3. Set-Top Box
4. TV sets
5. Ethernet port
6. Consumer electronics

### ■ Part No. Code



# Gas Discharge Tube: GS2 Series

## SMD L3.2\*W1.6\*H1.6 mm Type



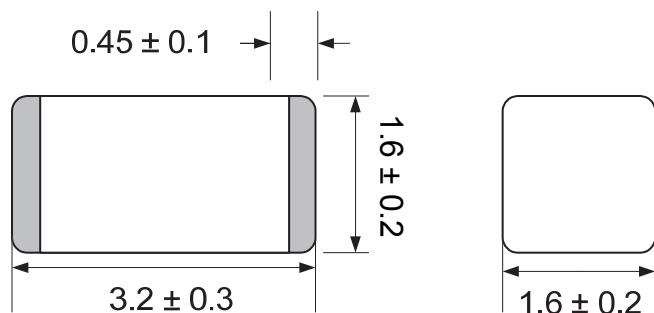
### ■ Characteristics

Part No.	DC Spark-over Voltage	Max. Impulse Discharge Current	Normal Alternating Discharge Current	Impulse Life	Minimum Insulation Resistance	Maximum Capacitance	Safety Approvals
	100V/S (V)	8/20 $\mu$ s (A)	50Hz, 1Sec (A)	8/20 $\mu$ s, 50A (Times)	@DC 100V (M $\Omega$ )	1MHz (pF)	UL 1449 / cUL
GS22R150NR	150 (105~195)	500A (Positive/ Negative 5 Times)	0.5A 10 Times	300	Min. 100	0.3	√
GS22R200NR	200 (140~260)						√
GS22R400NR	400 (280~520)						√
GS22R420NR	420 (294~546)						√
GS22R500NR	500 (350~650)						√
GS22R600NR	600 (420~780)						√

Note1: UL 1449 3rd File No: E314979

### ■ Dimension

(Unit: mm)

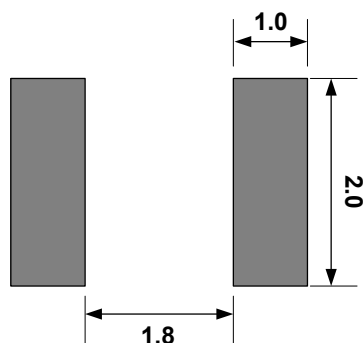


### ■ Marking



### ■ Recommended Pad Size

(Unit: mm)



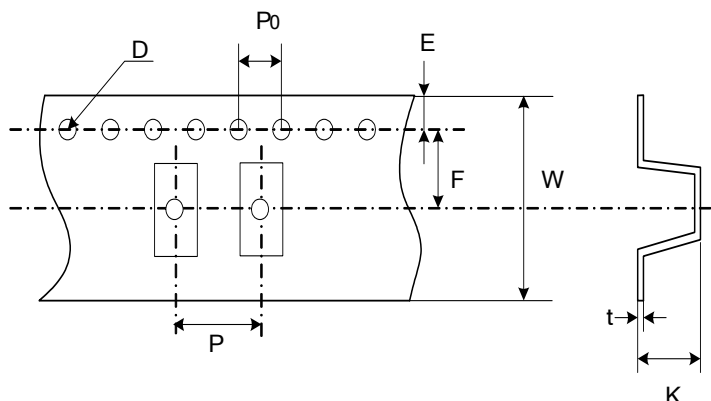
# Gas Discharge Tube: GS2 Series

## SMD L3.2\*W1.6\*H1.6 mm Type



### ■ Packaging

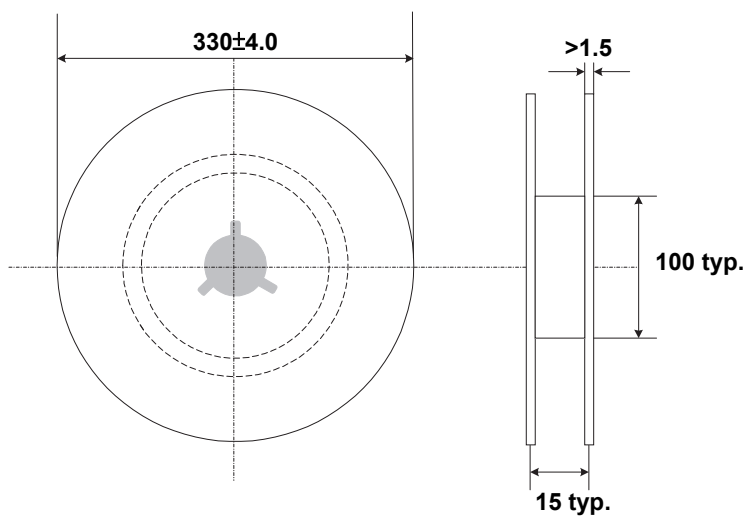
#### ● Taping



Quantity: 3,000pcs per reel (13'')

(Unit: mm)

ITEM	P	P0	W	F	E	D	K	t
Spec.	8.0	4.0	12.0	5.45	1.75	Φ1.55	2.0	0.3
Tolerance	±0.1	±0.1	±0.3	±0.1	±0.1	±0.05	±0.1	±0.05



### ■ Warehouse Storage Conditions of Products

#### ● Storage Conditions:

1. Storage Temperature: -10°C ~ +40°C
2. Relative Humidity: ≤ 75%RH
3. Keep away from corrosive atmosphere and sunlight.

#### ● Period of Storage : 1 year

# Gas Discharge Tube: GF3 Series

## SMD L4.5\*W3.2\*H2.7 mm Type



### ■ Features

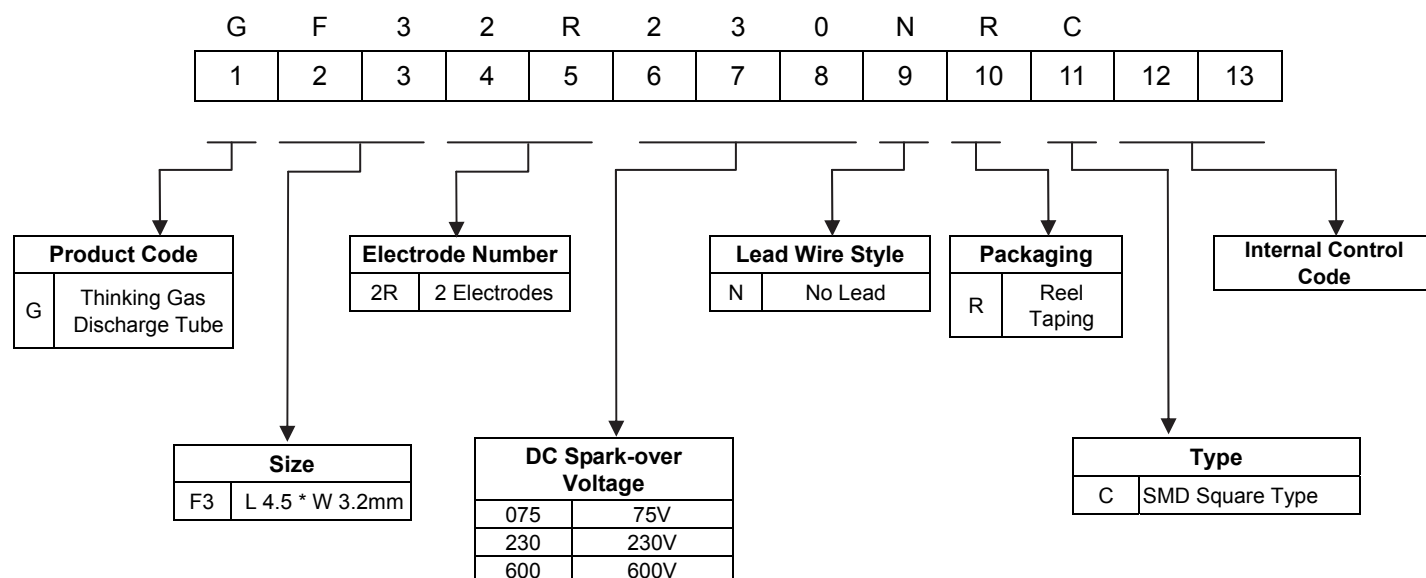
1. RoHS & HF compliant
2. SMD Structure
3. DC Spark-over voltage: 75~600V
4. Low Capacitance
5. Agency Recognition : UL
6. Operating temperature : -30°C ~ +85°C  
Storage temperature: -40°C ~ +115°C



### ■ Recommended Applications

1. Cable Modem
2. xDSL
3. Set-Top Box
4. TV sets
5. Ethernet port
6. Consumer electronics

### ■ Part No. Code



# Gas Discharge Tube: GF3 Series

## SMD L4.5\*W3.2\*H2.7 mm Type



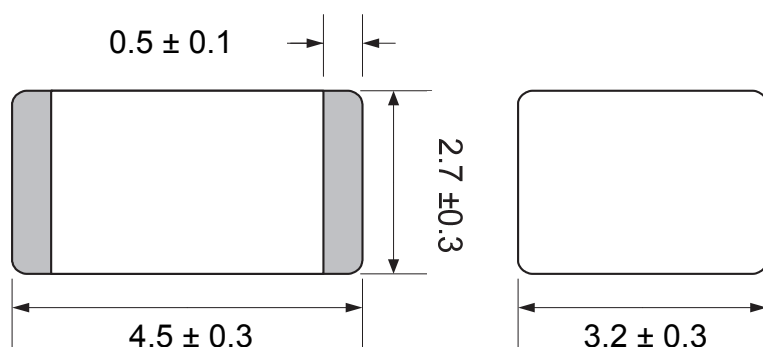
### ■ Characteristics

Part No.	DC Spark-over Voltage	Max. Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Impulse Life	Minimum Insulation Resistance	Maximum Capacitance	Safety Approvals
	100V/S (V)	8/20μs (KA)		8/20 μs,100A (Times)	@DC 100V (MΩ)	1MHz (pF)	UL 497B
GF32R075NRC	75 (55~95)	2KA (Positive/ Negative 5 Times)	10/700us 4kV (Positive/ Negative 5 Times)	300	Min. 100	0.5	√
GF32R090NRC	90 (63~117)						√
GF32R120NRC	120 (84~156)						√
GF32R150NRC	150 (105~195)						√
GF32R200NRC	200 (140~260)						√
GF32R230NRC	230 (161~299)						√
GF32R300NRC	300 (210~390)						√
GF32R350NRC	350 (245~455)						√
GF32R400NRC	400 (280~520)						√
GF32R420NRC	420 (294~546)						√
GF32R470NRC	470 (329~611)						√
GF32R500NRC	500 (350~650)						√
GF32R600NRC	600 (420~780)						√

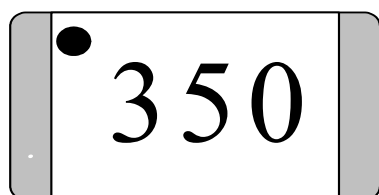
Note1: UL 497B File No : E245070

### ■ Dimension

(Unit: mm)



### ■ Marking



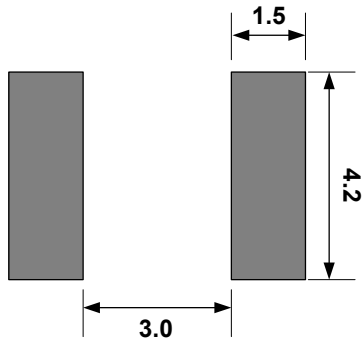
# Gas Discharge Tube: GF3 Series

## SMD L4.5\*W3.2\*H2.7 mm Type



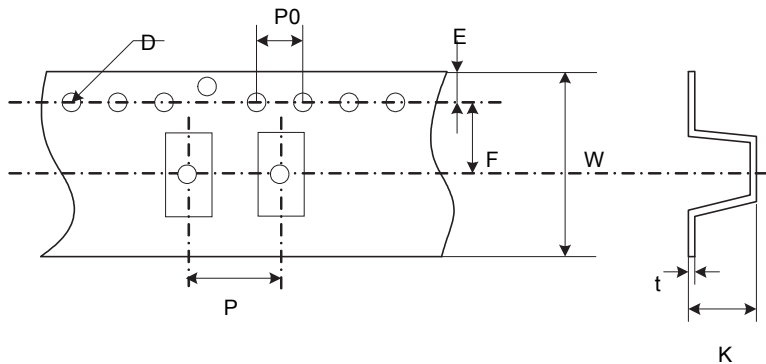
### ■ Recommended Pad Size

(Unit: mm)



### ■ Packaging

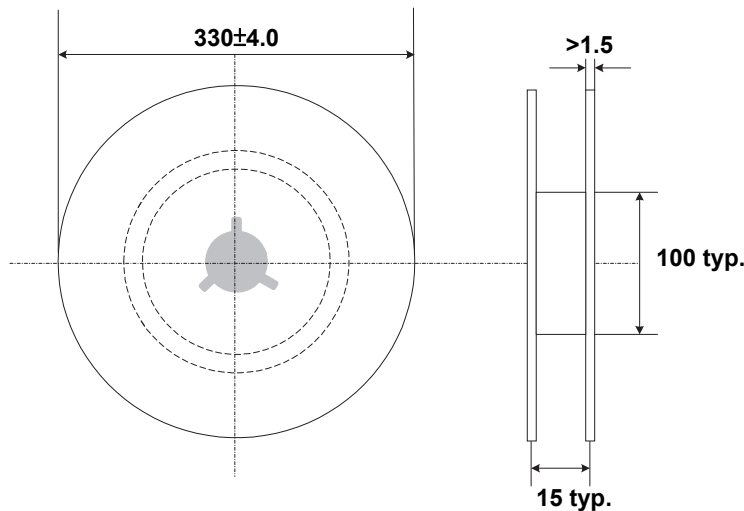
#### ● Taping



Quantity: 2,500pcs per reel (13")

Unit: mm

ITEM	P	P0	W	F	E	D	K	t
Spec.	8.0	4.0	12.0	5.45	1.75	Φ1.55	3.1	0.4
Tolerance	±0.1	±0.1	±0.3	±0.1	±0.1	±0.05	±0.1	±0.05



### ■ Warehouse Storage Conditions of Products

- Storage Conditions:
  1. Storage Temperature: -10°C~+40°C
  2. Relative Humidity: ≤75%RH
  3. Keep away from corrosive atmosphere and sunlight.
- Period of Storage: 1 year

# Gas Discharge Tube: GF4 Series

## SMD 2-Electrode $\Phi 4.2 \times T4$ mm Type



### ■ Features

1. RoHS & HF compliant
2. SMD type series
3. DC spark-over voltage: 75~2000V
4. Low capacitance
5. Agency recognition :UL / cUL
6. Operating temperature :  $-30^{\circ}\text{C} \sim +85^{\circ}\text{C}$   
Storage temperature:  $-40^{\circ}\text{C} \sim +115^{\circ}\text{C}$



### ■ Recommended Applications

1. Cable Modem
2. xDSL
3. Set-Top Box
4. TV sets
5. Power supplier
6. Consumer electronics

### ■ Part Number Code

