



# Gas Discharge Tubes PG8D6xR Series

## Description

The PG8D6xR series offers high levels of performance on fast rising transients in the domain of 100V/s to 1KV/s, which are those most likely from induced Lightning disturbances.

The PG8D6xR series also features ultra low capacitance (<1.5pF) and optimised internal geometry which provides low insertion loss at high frequencies, so are ideal for the protection of broadband equipment. These devices are extremely robust and are able to divert a 10,000A pulse without destruction.



## Features

- Excellent response to fast rising transients
- Stable breakdown voltage
- GHz working frequency
- 8/20's Impulse current capability: 10KA
- Non-Radioactive
- Ultra Low capacitance (< 1.5pF)
- Lead-free compliant
- RoHS and REACH compliant
- Storage and operational temperature: - 40 °C ~+90 °C

## Applications

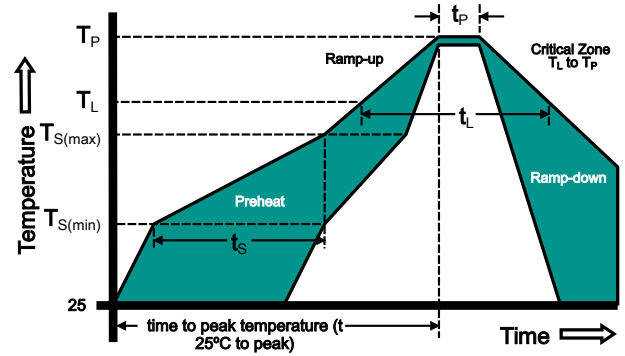
- MDF modules
- XDSL equipment
- RF systems
- Antenna
- Base Stations
- Repeaters, Modems
- Telephone Interface, Line cards
- Data communication equipment
- Line test equipment
- Power supplies
- Surge protectors, Alarm systems

## Electrical Characteristics

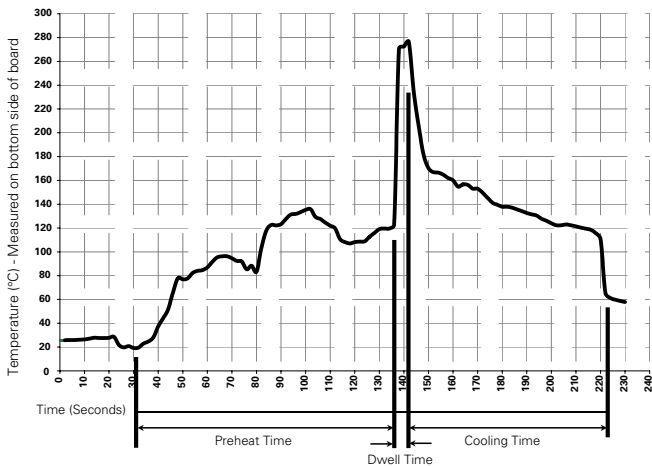
Part Number	DC Spark-over Voltage 1) 2) @100V/S	Impulse Spark-over Voltage		Insulation Resistance 3)	Capacitance @1MHz	Glow Voltage @10mA	Arc Voltage @1A	Life Ratings		
		100V/μS	1KV/μS					Impulse Discharge Current @8/20μS		AC Discharge Current @50Hz 1S
		Max	Max	Min	Max	Type	Type	Nominal ±5 times	Max 1 time	Nominal 10 times
		V	V	GΩ	pF	V	V	KA	KA	A
PG8D6xR075B	75±20%	500	600	1	1.5	60	10	10	20	10
PG8D6xR090B	90±20%	500	600	1	1.5	60	10	10	20	10
PG8D6xR150B	150±20%	500	600	1	1.5	60	10	10	20	10
PG8D6xR230B	230±20%	600	700	1	1.5	60	10	10	20	10
PG8D6xR250B	250±20%	600	700	1	1.5	60	10	10	20	10
PG8D6xR300B	300±20%	700	800	1	1.5	60	10	10	20	10
PG8D6xR350B	350±20%	700	800	1	1.5	60	10	10	20	10
PG8D6xR400B	400±20%	750	850	1	1.5	135	15	10	20	5
PG8D6xR420B	420±20%	750	850	1	1.5	135	15	10	20	5
PG8D6xR470B	470±20%	800	900	1	1.5	135	15	10	20	5
PG8D6xR600B	600±20%	900	1000	1	1.5	135	15	10	20	5
PG8D6xR800B	800±20%	1200	1400	1	1.5	135	15	10	20	5

## Soldering Parameters - Reflow Soldering (Surface Mount Devices)

Reflow Condition		Pb – Free assembly
PreHeat	- Temperature Min ( $T_{S(min)}$ )	150°C
	- Temperature Max ( $T_{S(max)}$ )	200°C
	- Time (Min to Max) ( $t_S$ )	60 – 180 seconds
Average ramp up rate (Liquidus Temp $T_L$ ) to peak		3°C/second max
$T_{S(max)}$ to $T_L$ - Ramp-up Rate		5°C/second max
Reflow	- Temperature ( $T_L$ ) (Liquidus)	217°C
	- Time (min to max) ( $t_S$ )	60 – 150 seconds
Peak Temperature ( $T_P$ )		260+0/-5 °C
Time within 5°C of actual peak Temperature ( $t_p$ )		10 – 30 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_P$ )		8 minutes Max.
Do not exceed		260°C



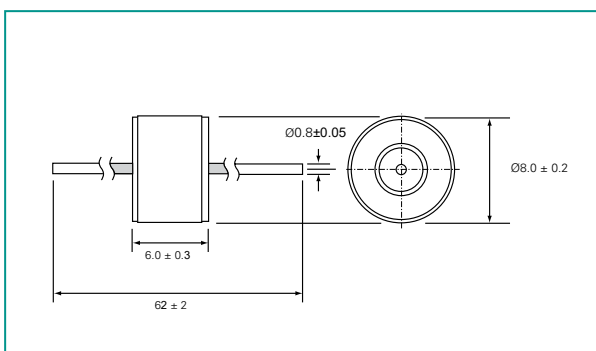
## Soldering Parameters - Wave Soldering (Thru-Hole Devices)



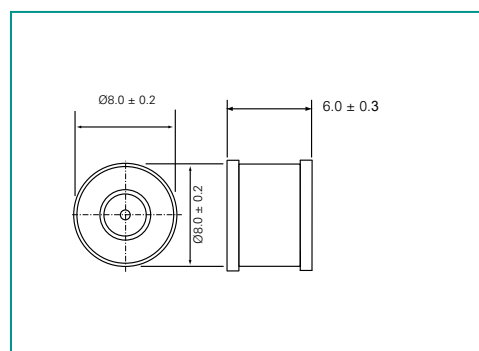
Wave Soldering Condition		Pb-Free assembly
Preheat	Temperature Min	100° C
	Temperature Max	150° C
	Time(Min to Max)	60-180 Seconds
Solder Pot Temperature		280° C Max
Solder Dwell Time		2-5 Seconds

## Device Dimensions (Unit/mm)

### PG8D6A Series



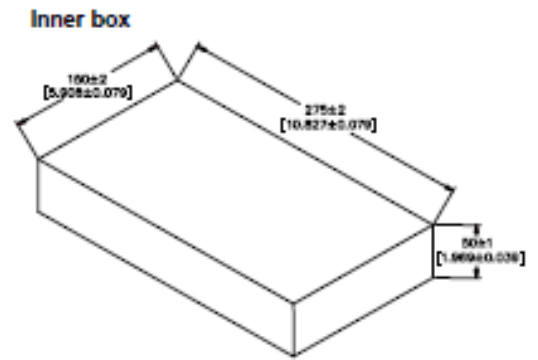
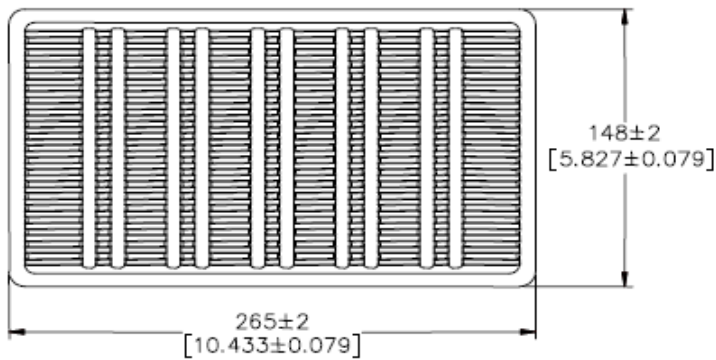
### PG8D6C Series



## Packaging Information (Unit:mm/inch)

### Axial Packing(Bulk)

Plastic Tray

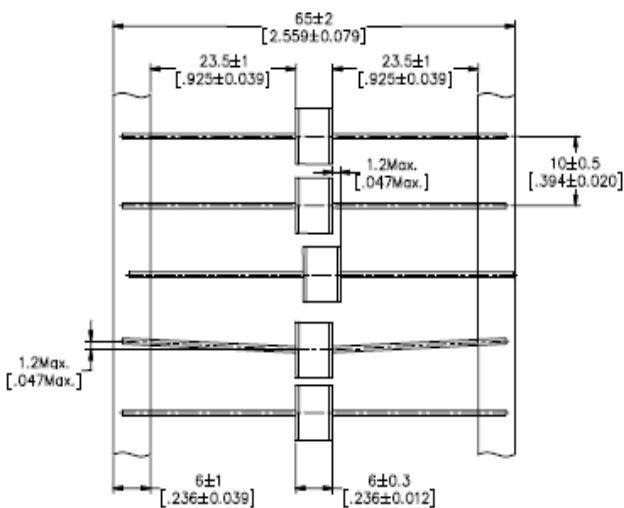


### Packaging Quantity

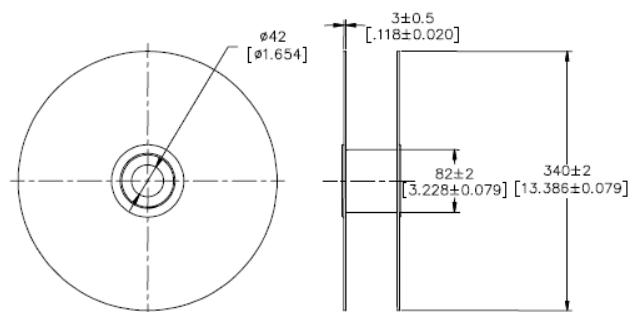
- 100 pcs per Plastic Tray
- 5 Plastic Trays per inner box
- 500 pcs per inner box

### Axial Packing(Tape&Reel)

Tape



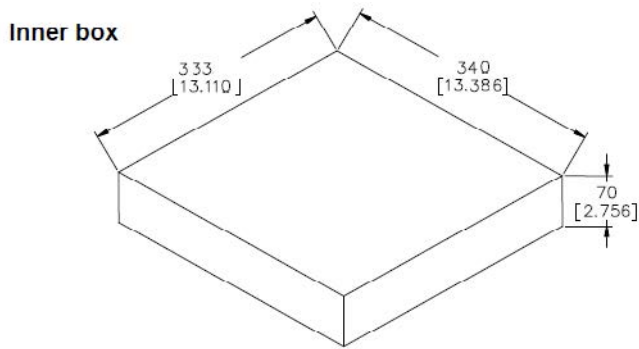
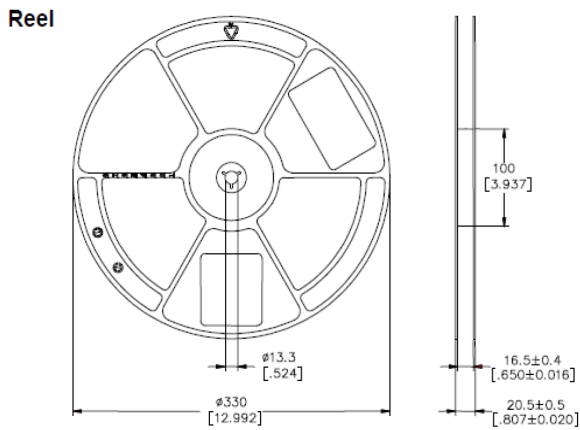
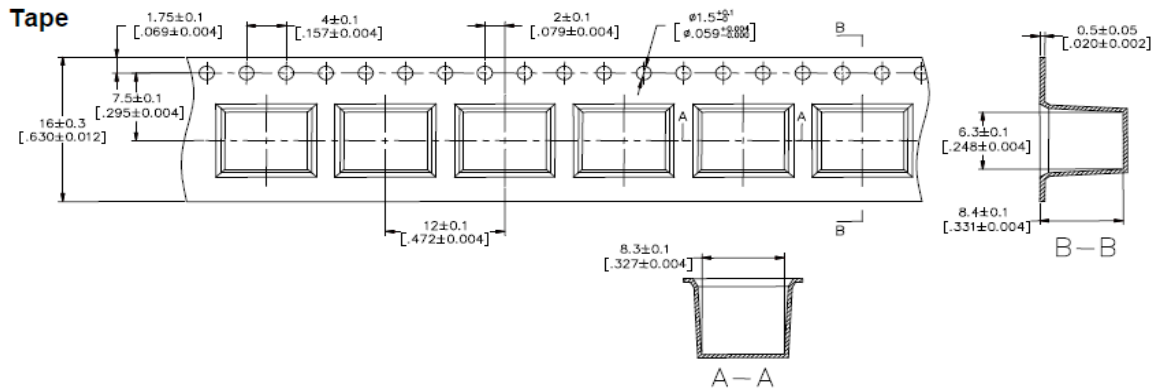
Reel



### Packing Quantity:

800 PCS per reel

### SMD Packaging(Tape&Reel)



### Packaging Quantity

500pcs per Reel

3 Reels per inner box

1500 pcs per inner box