

Description

The PG8D6x-HV Gas Discharge Tubes(GDT) series provides high levels of protection against fast rising transients caused by lightning disturbances. Offered in a miniature surface mount package, it has a surge rating of 10KA/5KA 8/20 μ s.

The PG8D6x-HV GDTs are high voltage (1000-5000V) components designed for surge protection and high isolation applications.

It is also suitable for applications for which bias voltage or signal levels of several hundred volts are normally present. The PG8D6x GDTs can be used in conjunction with MOVs (Metal Oxide Varistors) to provide superior protection performance for AC applications.



(8x6mm)
PG8D6A-HV
Series



(8x6mm)
PG8D6C-HV
Series



Features

- Voltage Ranges 1000V to 5000V
- Excellent response to fast rising transients.
- 8/20 μ s Impulse current capability:10KA/5KA
- Non-Radioactive
- Ultra Low capacitance (< 1.5pf)
- Lead-free compliant
- RoHS and REACH compliant
- UL1449 Recognized:E479668
- Size:Φ8mm*6mm
- Storage and operational temperature:-40~+125 C

Applications

Automotive:

- On-board chargers
- Vehicle charging stations

Others:

- LED lighting
- power supply
- Photovoltaic
- Air conditioning



Electrical Characteristics

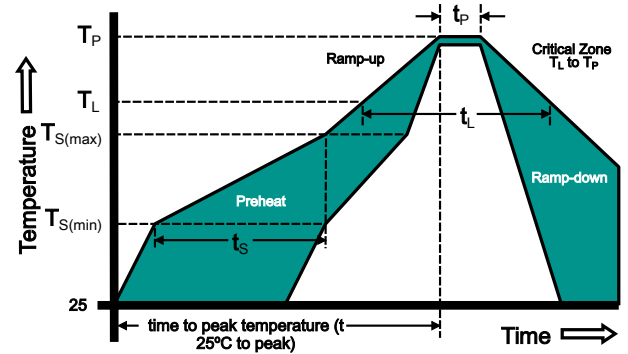
Part Number	DC Spark-over Voltage 1) 2) @100V/S	Impulse Spark-over Voltage		Insulation Resistance 3)	Capacitance @1MHz	Glow Voltage @10mA	Arc Voltage @1A	AC withstand Voltage @5mA 1Min	Life Ratings		
		100V/ μ S	1KV/ μ S						Impulse Discharge Current @8/20 μ S		AC Discharge Current @50Hz 1S
		Max	Max						Nominal \pm 5 times	Max 1 time	Nominal 5 times
	V	V	V	G Ω	pF	V	V	V	KA	KA	A
PG8D6xR1000B-HV	1000 \pm 20%	1400	1500	1	1.5	160	15	500	10	15	10
PG8D6xR1200B-HV	1200 \pm 20%	1700	1800	1	1.5	160	15	600	10	15	10
PG8D6xR1400B-HV	1400 \pm 20%	2100	2200	1	1.5	235	18	700	10	15	10
PG8D6xR1500B-HV	1500 \pm 20%	1300	2500	1	1.5	235	18	750	10	15	10
PG8D6xR1600B-HV	1600 \pm 20%	2600	2800	1	1.5	235	18	800	10	15	10
PG8D6xR1800B-HV	1800 \pm 20%	3000	3200	1	1.5	235	18	900	10	15	10
PG8D6xR2000A-HV	2000 \pm 20%	3300	3500	1	1.5	260	30	1000	5	10	5
PG8D6xR2400A-HV	2400 \pm 20%	3700	3900	1	1.5	260	30	1200	5	10	5
PG8D6xR2500A-HV	2500 \pm 20%	3800	4000	1	1.5	260	30	1300	5	10	5
PG8D6xR2700A-HV	2300~3240	4000	4200	1	1.5	260	30	1500	5	10	5
PG8D6xR3000A-HV	3000 \pm 20%	4300	4500	1	1.5	260	30	1600	5	10	5
PG8D6xR3500A-HV	3500 \pm 20%	4600	4800	1	1.5	260	30	1800	5	10	5

PG8D6xR3600A-HV	3600±20%	4800	5000	1	1.5	260	30	1900	5	10	5
PG8D6xR4000A-HV	4000±20%	5800	6000	1	1.5	280	35	2100	5	10	5
PG8D6xR4500A-HV	4500±20%	6300	6500	1	1.5	280	35	2300	5	10	5

*Devices test at ambient temperature of 25 °C , Operation temperature -40~125 °C

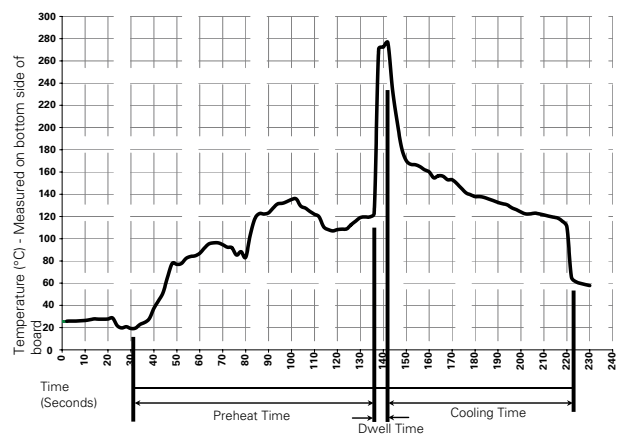
Soldering Parameters - Reflow Soldering (Surface Mount Devices)

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

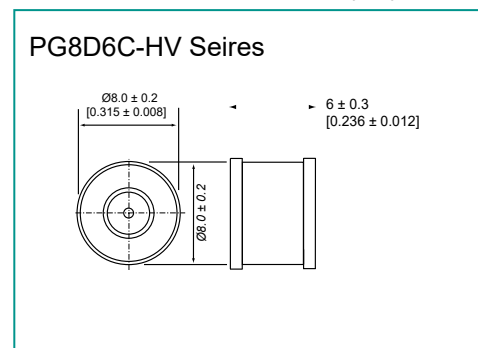
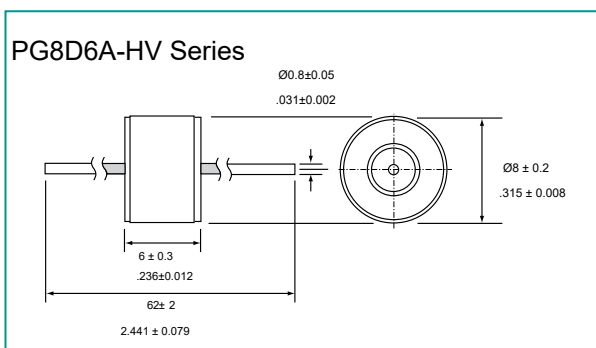


Soldering Parameters - Wave Soldering (Thru-Hole Devices)

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



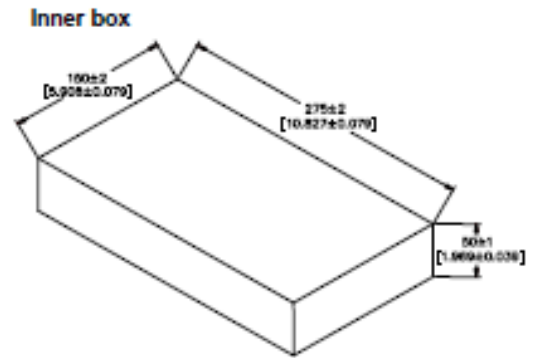
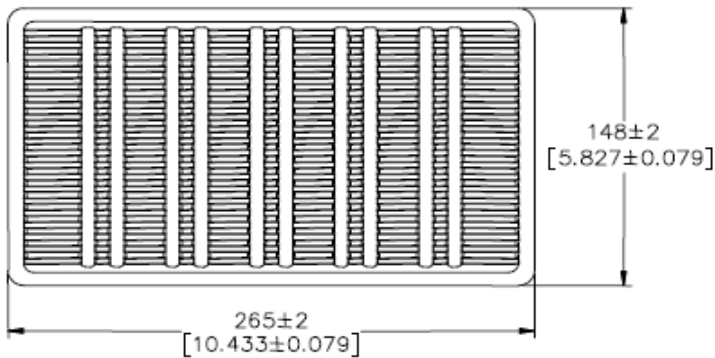
Device Dimensions (Unit:mm/inch)



Packaging Information (Unit:mm/inch)

Axial Packing(Bulk)

Plastic Tray



Packaging Quantity

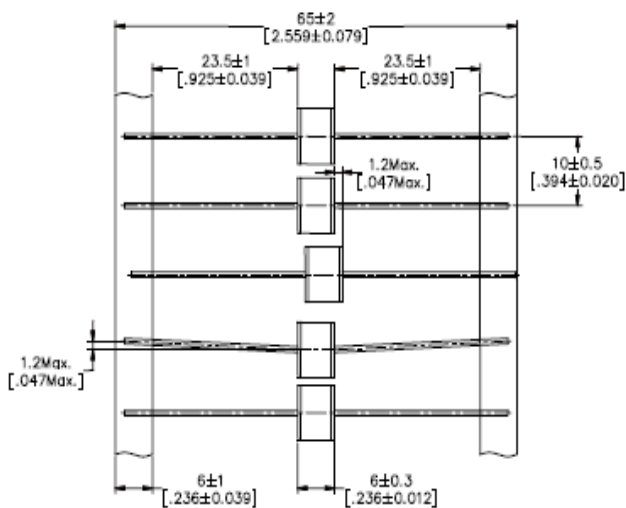
100 PCS per Plastic Tray

5 Plastic Trays per inner box

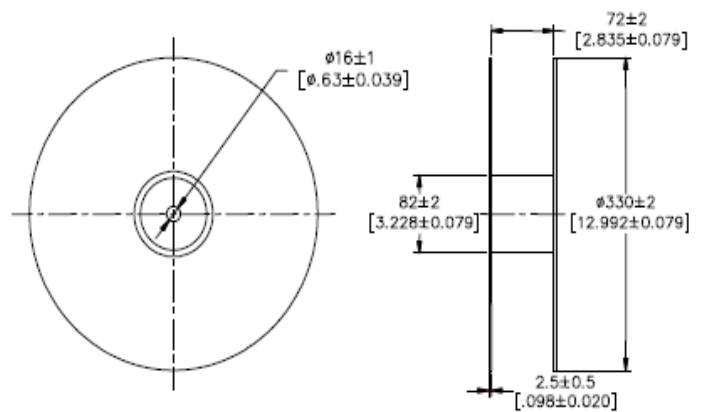
500 pcs per inner box

Axial Packing(Tape&Reel)

Tape



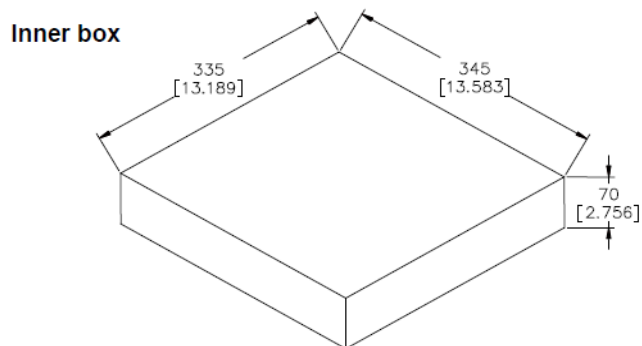
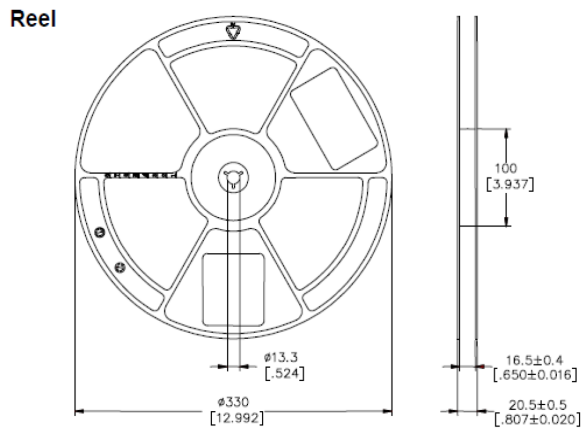
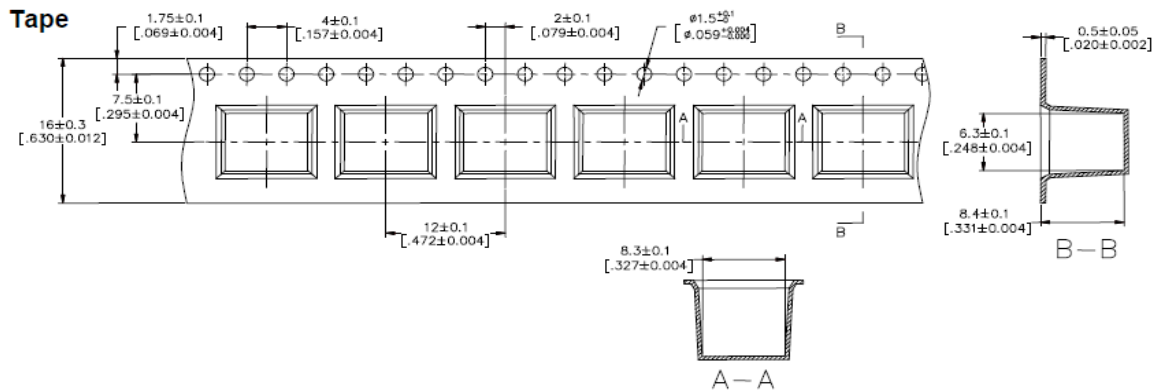
Reel



Packaging Quantity:

800 PCS per reel

SMD Packaging(Tape&Reel)



Packaging Quantity

500 PCS per reel 13''

3 reels per inner box

1,500 pcs per inner box