Gas Discharge Tubes
PG8D6x Series

Description

The PG8D6x series offers high levels of performance on fast rising transients in the domain of 100V/μs to 1KV/μs, which are those most likely from induced Lightning disturbances.
The PG8D6x 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/20,000A pulse without destruction.

(8x6mm)
PG8D6A Series

(8x6mm)
PG8D6S Series

(8x6mm)
PG8D6C Series

Bi-Electrode

Features

- Excellent stability on multiple pulse duty cycle
- Excellent response to fast rising transients.
- Ultra Low Insertion Loss
- 5KA surge capability tested with 8/20μS
- Non-Radioactive
- Low capacitance (≤1.5pF)
- Voltage Ranges 90V to 600V
- RoHS compliant and Lead-free

Applications

- Broadband equipment
- ADSL equipment
- XDSL equipment
- Satellite and CATV equipment
- General telecom equipment

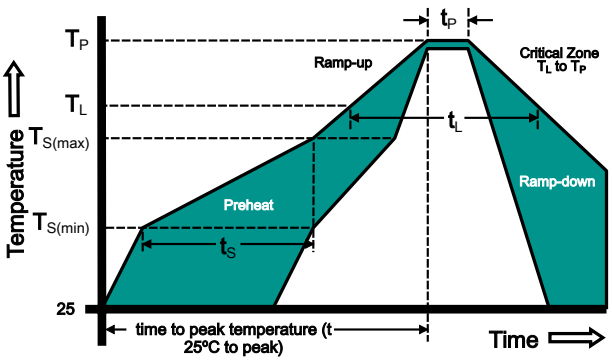
Electrical Characteristics

Part No.	DC Breakdown in Volts (@100V/s)	Impulse Breakdown in Volts (@1kV/μs) Max.(V)	Insulation Resistance Min.	Insulation Resistance DC	Capacitance (@1KHz) Max.	Nominal Impulse Discharge Current (@8/20μs)	Nominal Discharge Current (1sec/50Hz)
PG8D6xN090B	90±25%	700	1GΩ	50V	≤1.5 pf	10.0 kA	20.0 A
PG8D6xN230B	230±20%	800		100V	≤1.5 pf		
PG8D6xN350B	350±20%	850		100V	≤1.5 pf		
PG8D6xN470B	470±20%	1050		100V	≤1.5 pf		
PG8D6xN600B	600±20%	1200		100V	≤1.5 pf		
PG8D6xN090C	90±25%	700	1GΩ	50V	≤1.5 pf	20.0 kA	20.0 A
PG8D6xN230C	230±20%	800		100V	≤1.5 pf		
PG8D6xN350C	350±20%	850		100V	≤1.5 pf		
PG8D6xN470C	470±20%	1050		100V	≤1.5 pf		
PG8D6xN600C	600±20%	1200		100V	≤1.5 pf		

*Devices test at ambient temperature of 25°C, Operation temperature -40~125°C
"x"Code letter for ptoduct packages

Soldering Parameters - Reflow Soldering

Reflow Condition		Pb – Free assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	-Time (Min to Max) (t_s)	60 – 180 secs
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
	-Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		$260^{+0/-5}$ °C
Time within 5°C of actual peak Temperature (t_p)		8 – 20 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C



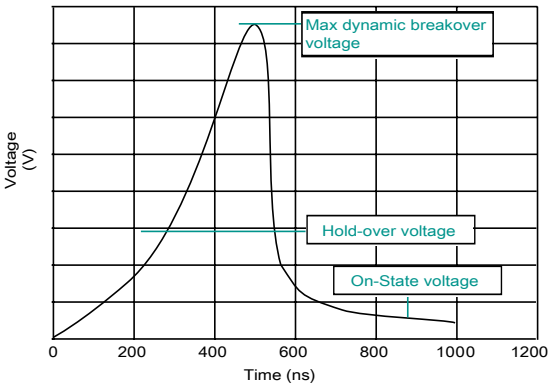
Soldering Parameters - Hand Soldering

Solder Iron Temperature: 350° C +/- 5°C
Heating Time: 5 seconds max.

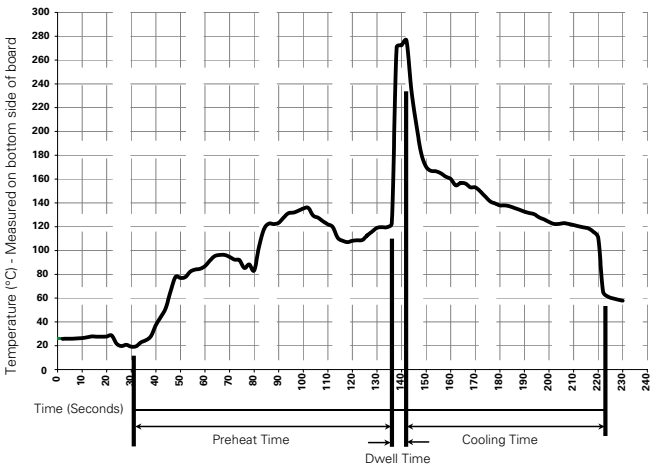
Product Characteristics

Materials	Element:Silver or Silver Ceramic Body / End plate Metallization of ceramic body High temperature solder preform End termination overcoat:Nickel Flash,Tin/Lead
Storage and Operational Temperature	-40 to +90 °C

Voltage vs. Time Characteristic



Soldering Parameters - Wave Soldering (Thru-Hole Devices)



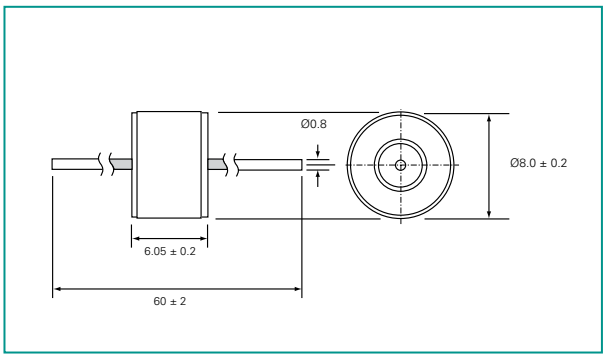
Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	280° C Maximum
Solder Dwell Time:	2-5 seconds

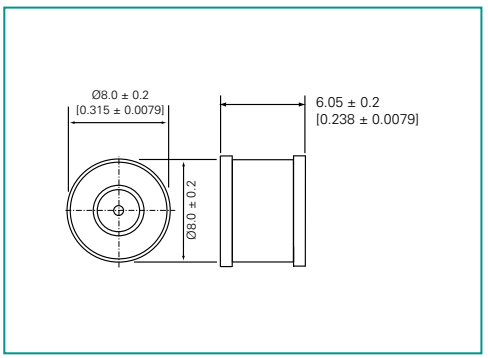
Note: These devices are not recommended for IR or Convection Reflow process.

Device Dimensions (Unit/mm)

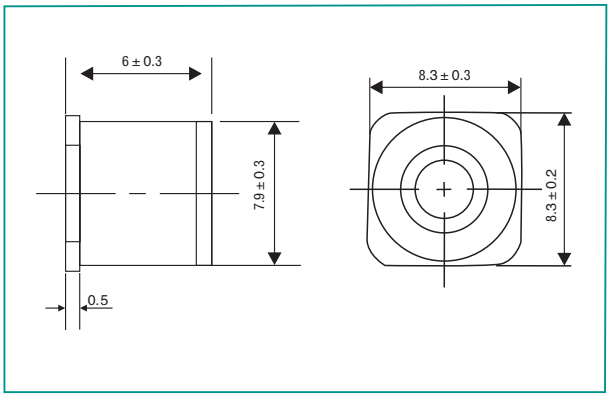
PG8D6A Series



PG8D6C Series



PG8D6S Seires



Packaging (Tape and Reel)

Part Number	Description	Quantity
PG8D6S	600pcs Per Reel,2400pcs outer box	2400pcs
PG8D6A	800pcs Per Reel,3200pcs outer box	3200pcs
PG8D6C	600pcs Per Reel,2400pcs outer box	2400pcs