

Description

The PG2D18 Series is a series of square GDT devices in a standard 1812 footprint (4.5x3.2x2.7mm) which is the smallest GDT in the market. PG2D18 series GDT's feature an ultra low capacitance (≤ 0.8 pF) and are able to withstand high surge currents without destruction.



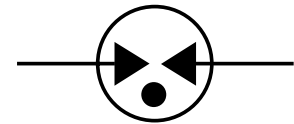
1812 (4.5x3.2x2.7mm)
Surface Mount

Features

- RoHS compliant and Lead-free
- Small size 4.5x 3.2x 2.7mm
- Excellent stability on multiple pulse duty cycle
- Excellent response to fast rising transients.
- Ultra Low Insertion Loss
- Low capacitance (≤ 0.8 pF)
- Voltage Ranges 90V to 600V
- 2.0KA surge capability tested with 8/20 μ S pulse as defined by IEC 61000-4-5

Applications

- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Telecom SLIC protection
- Set top box protection
- Broadband equipment
- ADSL equipment, including ADSL2+
- XDSL equipment
- Satellite and CATV equipment
- General telecom equipment



Bi-Electrode

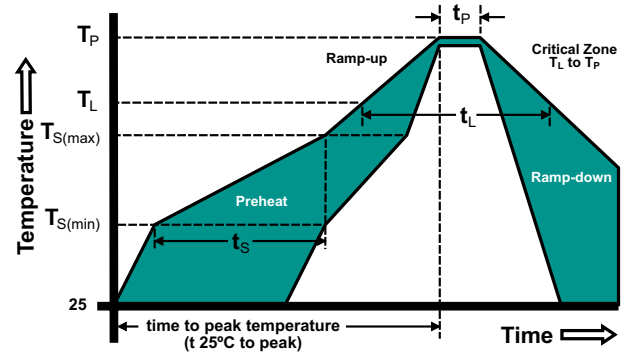
Electrical Characteristics

Part No.	DC Breakdown in Volts (@100V/s)	Impulse Breakdown in Volts (@1kV/ μ s) Max.(V)	Insulation Resistance		Capacitance (@1KHz) Max.	Nominal AC Discharge Current (1s @50Hz)	Nominal Impulse Discharge Current (@8/20 μ s)	Nominal Impulse Discharge Current (@10/700 μ s)
			Min.	DC				
PG2D18N090	90 \pm 25%	700	1G Ω	50V	≤ 0.8 pf	2.0A	1.0kA	4.0kV
PG2D18N150	150 \pm 25%	750		50V	≤ 0.8 pf			
PG2D18N230	230 \pm 20%	800		100V	≤ 0.8 pf			
PG2D18N350	350 \pm 20%	850		100V	≤ 0.8 pf			
PG2D18N470	470 \pm 20%	1050		100V	≤ 0.8 pf			
PG2D18N600	600 \pm 20%	1200		100V	≤ 0.8 pf			

*Devices test at ambient temperature of 25°C

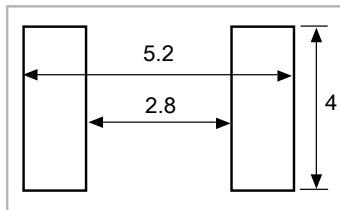
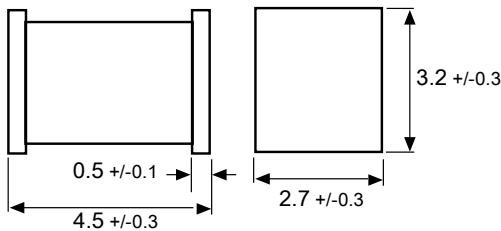
Soldering Parameters - Reflow Soldering

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)		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



Device Dimensions

Unit/mm

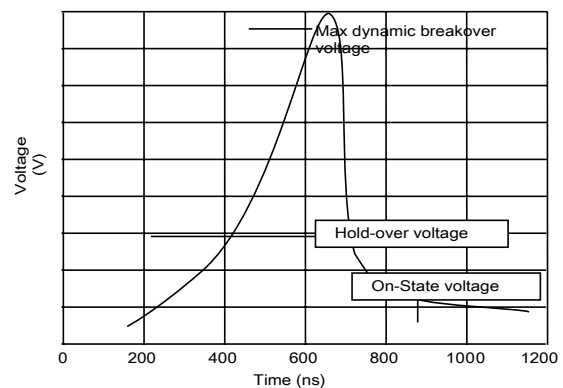


Recommended Soldering Pad Layout

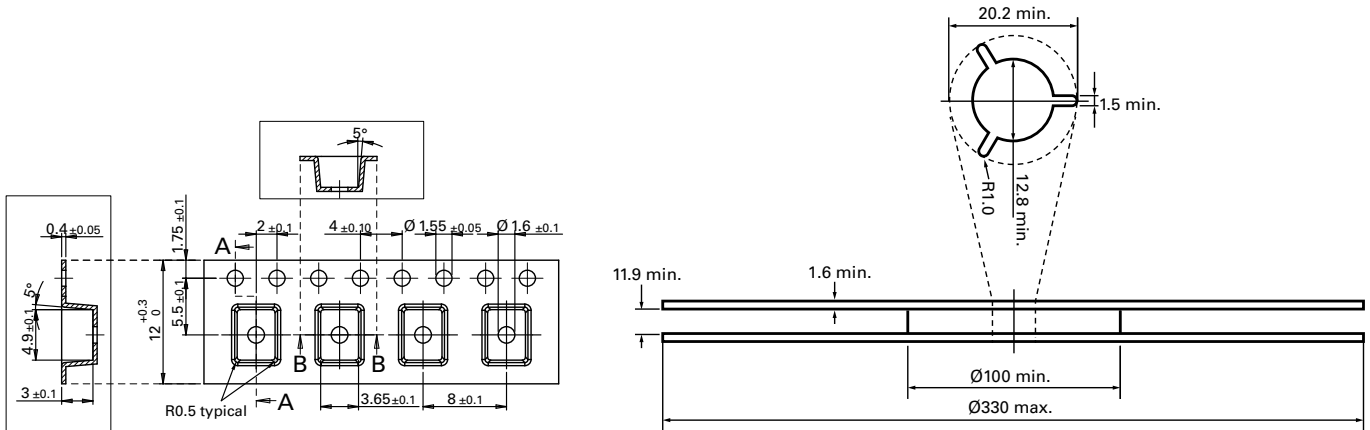
Product Characteristics

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



Tape and Reel Dimensions (Unit/mm)



Packaging (Tape and Reel)

Quantity: 2,500pcs