

Description

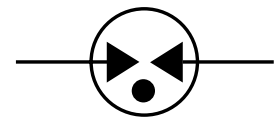
The PG2D12 Series is a series of square GDT devices in a standard 1206 footprint (3.2x1.6x1.6mm) which is the smallest GDT in the market. PG2D12 series GDT's feature an ultra low capacitances (< 1pF) and are able to withstand high surge currents without destruction.



1206 (3.2x1.6x1.6mm)
Surface Mount

Features

- RoHS compliant and Lead-free
- Small size 3.2x1.6x1.6mm
- Excellent stability on multiple pulse duty cycle
- Excellent response to fast rising transients.
- Ultra Low Insertion Loss
- Low capacitance (<1pF)
- Voltage Ranges 90V to 500V
- 0.5KA surge capability tested with 8/20μS pulse as defined by IEC 61000-4-5



Bi-Electrode

Applications

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

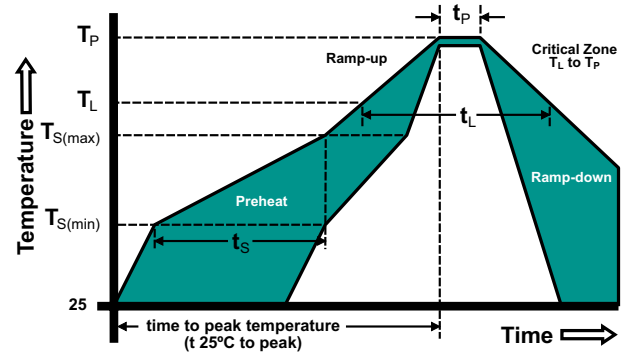
Electrical Characteristics

Part No.	DC Breakdown in Volts (@100V/s)	Impulse Breakdown in Volts (@1kV/μs) Max.(V)	Insulation Resistance		Capacitance (@1 KHz) Max.	Nominal Impulse Discharge Current (@8/20μs)	Nominal Impulse Discharge Current (@10/700μs)
			Min.	DC			
PG2D12R090	90±30%	500	100MΩ	50V	<1.0 pf	0.5 kA	2.0kV
PG2D12R140	140±30%	600		50V	<1.0 pf		
PG2D12R200	200±20%	600		100V	<1.0 pf		
PG2D12R300	300±20%	800		100V	<1.0 pf		
PG2D12R400	400±20%	900		100V	<1.0 pf		
PG2D12R500	500±20%	1000		250V	<1.0 pf		

*Devices test at ambient temperature of 25°C

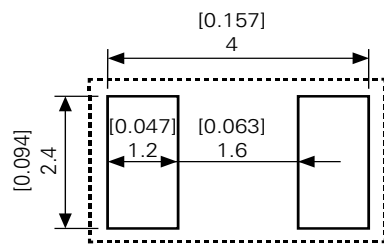
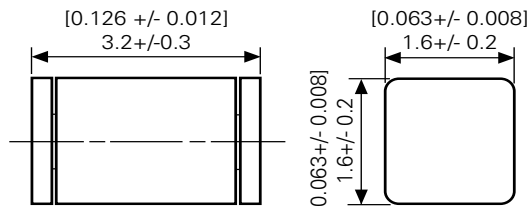
Soldering Parameters - Reflow Soldering

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

Dimensions in mm and inch [...]

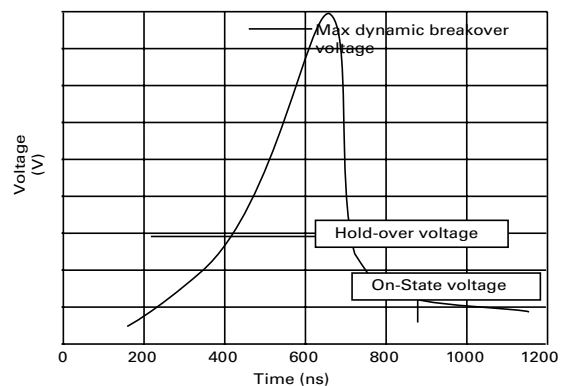


Recommended Pad Layout

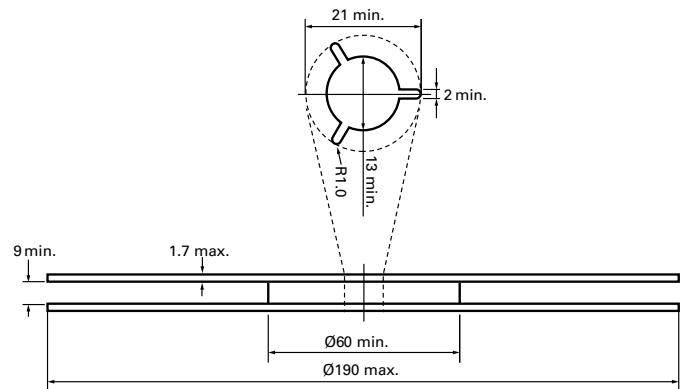
Product Characteristics

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

Voltage vs. Time Characteristic



Technical drawing of a mechanical part, showing a side view and a cross-section view. The side view includes dimensions: 0.4 ± 0.05 , 3.7 ± 0.1 , 1.9 ± 0.1 , $12^{+0.3}_{-0.1}$, 5.6 ± 0.1 , 1.75 ± 0.1 , 2 ± 0.1 , 4 ± 0.1 , 1.5 ± 0.05 , $\varnothing 1.1 \pm 0.1$, and 4 ± 0.1 . The cross-section view shows a profile with a 5° angle and a 2.1 ± 0.1 dimension. The drawing is labeled with 'A' and 'B' at various points.



Quantity: 2,500pcs