

## Features

- Ultra small SMD package:DFN1006 (0402)
- Low clamping voltage
- Low leakage current
- Uni-directional ESD protection
- IEC61000-4-2 Level 4 ESD Protection



## Applications

- Notebooks, Desktops, Servers
- Projection TV
- Cellular Handsets and Accessories
- Portable Instrumentation
- Peripherals

**DFN1006 (0402)**



**Schematic Diagram**

## Absolute Maximum Ratings

( $T_A=25^\circ\text{C}$  unless otherwise specified)

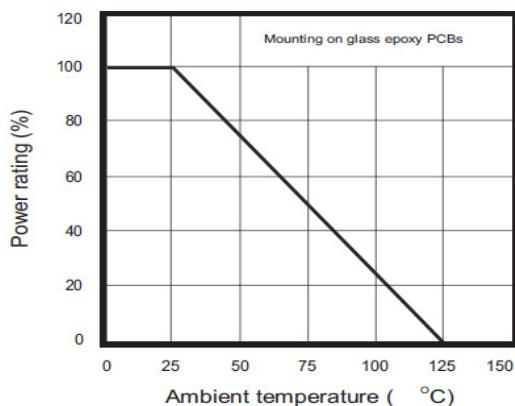
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_P=8/20\mu\text{s}$ )	$P_{PP}$	135	W
Peak Pulse Current ( $t_P = 8/20\mu\text{s}$ )	$I_{PP}$	10	A
Junction Temperature	$T_J$	-55 to +125	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 15$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 8$	kV

## Electrical Characteristics

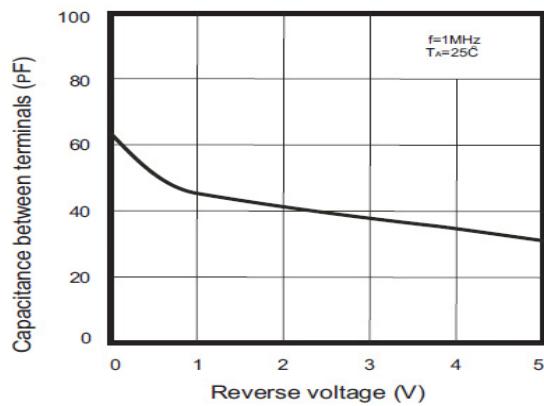
( $T_A=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	6.0	-		V
Reverse Leakage Current	$I_R$	$V_R=5\text{V}$	-	-	1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=10\text{A}, T_P=8/20\mu\text{s}$	-	-	13.5	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$	-	80		pF

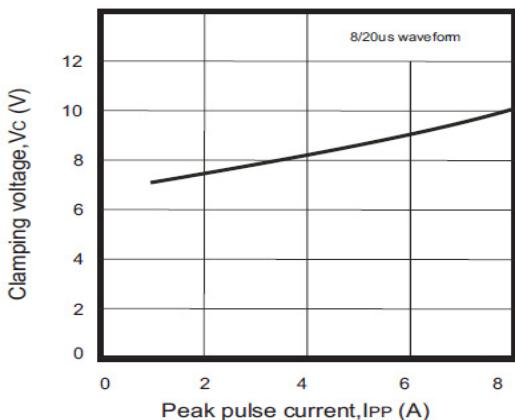
### Typical Characteristic Curves



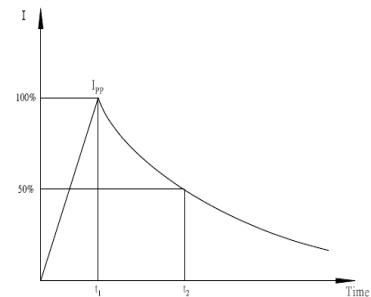
**Fig 1 : Junction Capacitance V.S Reverse Voltage Applied**



**Fig 2 : Peak Plus Power V.S Exponential Plus Duration**



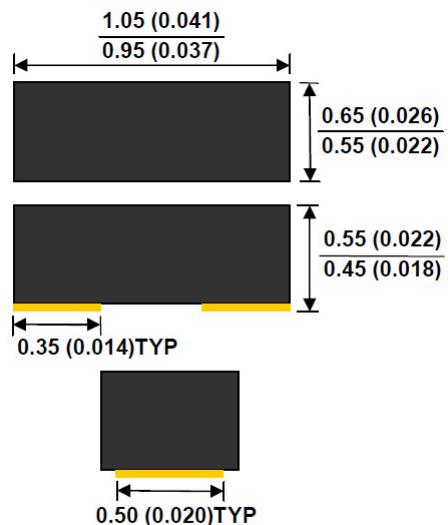
**Fig 3 : Clamping Voltage VS Peak Pulse Current**



t<sub>1</sub>=上升時段  
t<sub>2</sub>=下降時段  
10/1000 μs = t<sub>2</sub> / t<sub>1</sub>  
I<sub>pp</sub>=Peak Value (峰值電流)

**Fig 4 : Forward Voltage Drop V.S Peak Forward Current**

## Product Dimensions



Dimensions in millimeter and (inches)

## Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSES5VD1006-2U	DFN1006-2	5U	Tape & Reel	10000pcs / Reel	RoHS compliant