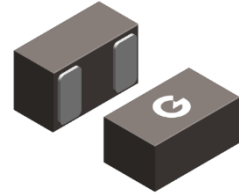
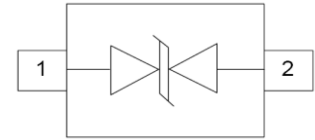


### Features

- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD):  $\pm 25$  kV (air),  $\pm 25$  kV (contact)
- Working voltage:  $V_{RWM} = 12V$
- Low reverse clamping voltage
- RoHS compliant with Halogen-free

HF



DFN1006-2

### Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

### Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
GESD12VB2L	DFN1006-2	10000 pcs / Tape & Reel	B2X

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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	$V_{ESD-A}$	$\pm 25$	kV
IEC 61000-4-2; ESD (Contact)	$V_{ESD-C}$	$\pm 25$	kV
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	$P_{PP}$	200	W
Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )	$I_{PP}$	9	A

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction Temperature	$T_J$	-55 ~ +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	$V_{RWM}$		-	-	12	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 1\text{mA}$	13.3	-	18	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 12\text{V}$	-	-	50	nA
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	-	16	V
		$I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$	-	-	20	V
		$I_{PP} = 9\text{A}, t_p = 8/20\mu\text{s}$	-	-	23	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$	-	10	-	pF

### Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

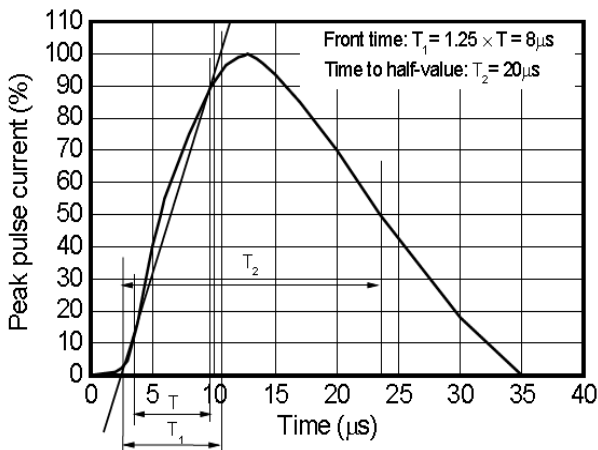


Fig 1 8/20  $\mu\text{s}$  waveform per IEC61000-4-5

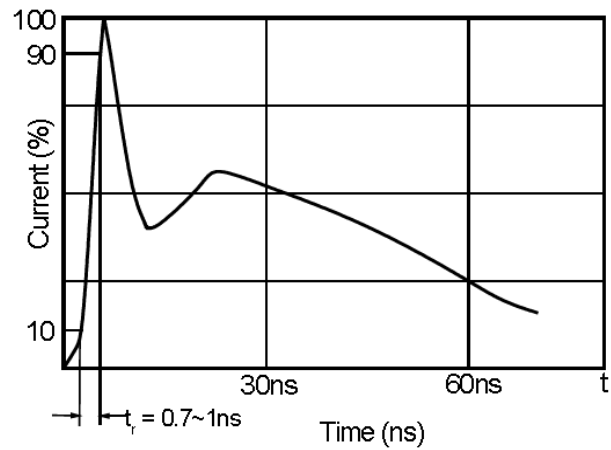


Fig 2 ESD pulse waveform according to IEC61000-4-2

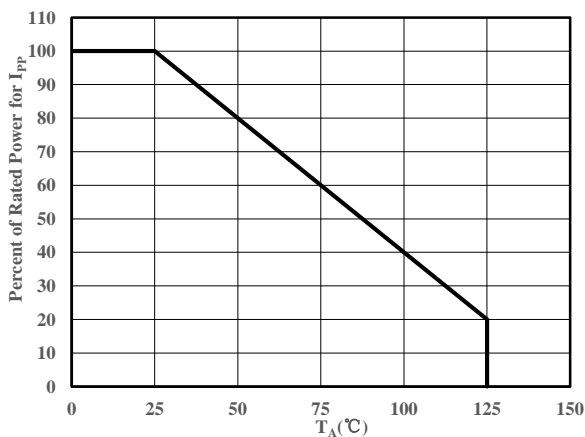
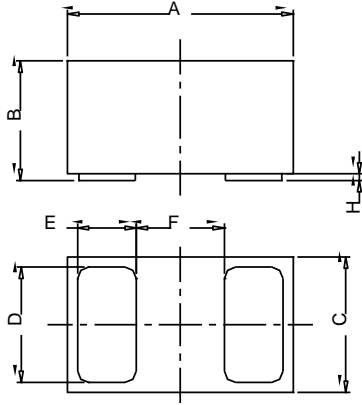


Fig 3 Power Derating Curve

### Package Outline Dimensions (Unit: mm)



DFN1006-2			
Dimension	Min.	Typ.	Max.
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

### Package Outline Dimensions (Unit: mm)

#### DFN1006-2

