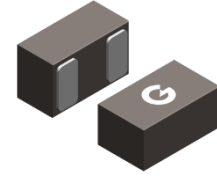
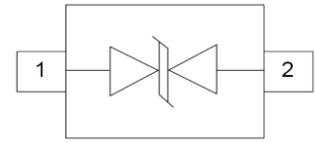


### Features

- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD):  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact)
- Low reverse stand-off voltage: 3.3V
- Low leakage current
- Low 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
GESD3V3BL	DFN1006-2	10000 pcs / Tape & Reel	ZY

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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	$V_{ESD-A}$	$\pm 30$	kV
IEC 61000-4-2; ESD (Contact)	$V_{ESD-C}$	$\pm 30$	kV
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	$P_{PP}$	330	W
Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )	$I_{PP}$	20	A

### Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction Temperature	$T_J$	-55 ~ +150	$^\circ\text{C}$
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	$V_{RWM}$		-	-	3.3	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 5\text{mA}$	5.2	5.6	6.0	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 3.3\text{V}$	-	-	50	nA
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	-	7	V
		$I_{PP} = 18\text{A}, t_p = 8/20\mu\text{s}$			15	V
		$I_{PP} = 20\text{A}, t_p = 8/20\mu\text{s}$			17.5	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$	-	30	50	pF

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

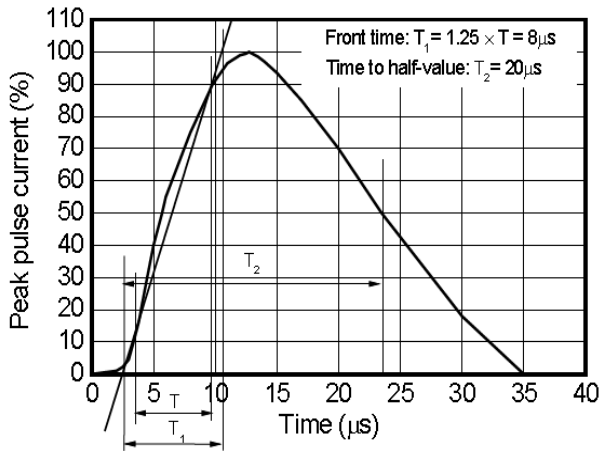


Fig 1 8/20  $\mu\text{s}$  waveform per IEC61000-4-5

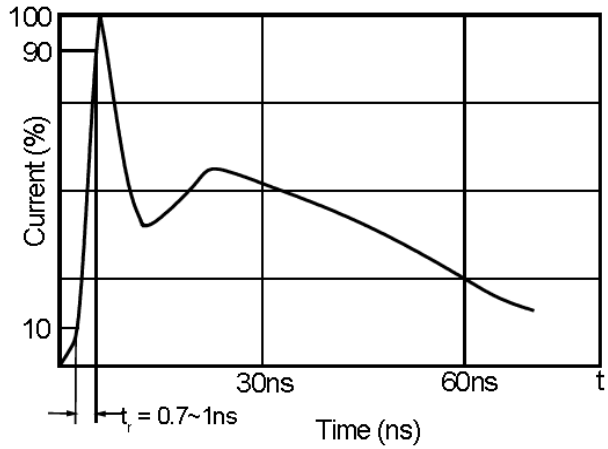


Fig 2 ESD pulse waveform according to IEC61000-4-2

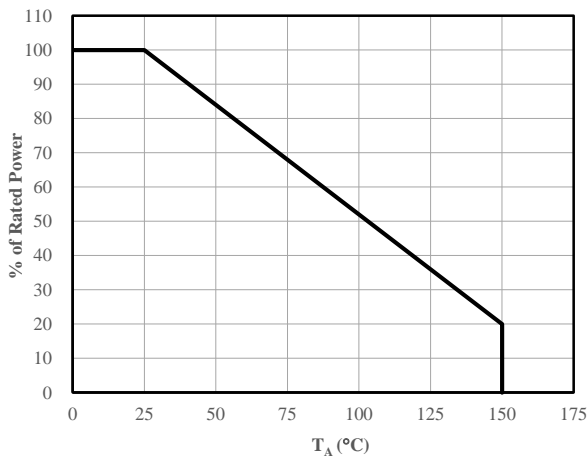


Fig 3 Power Derating Curve

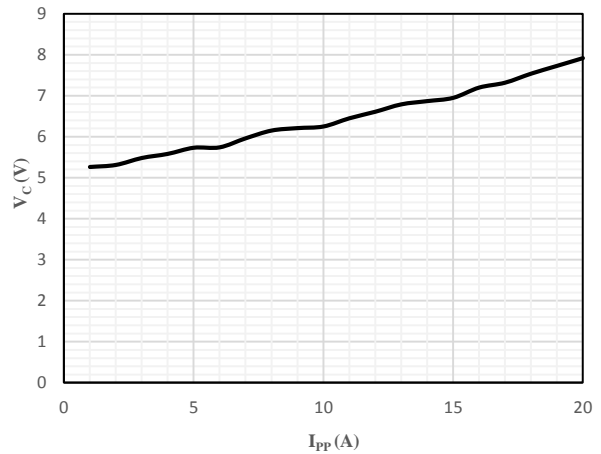
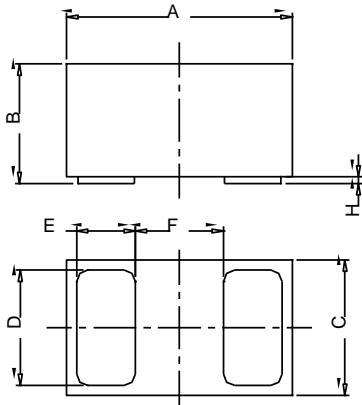


Fig 4 Clamping Voltage vs. Peak Pulse Current

**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**

