Ultra-Low Capacitance Bi-directional TVS Diode

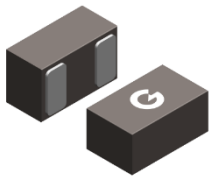
TGESD8V0B2L

Features

HF

- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD): ±25kV (air), ±25 kV (contact)
- Low reverse stand−off voltage: 8V
- Low Leakage Current
- Low Clamping Voltage
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards





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
TGESD8V0B2L	DFN1006-2	10000 pcs / Tape & Reel	OO

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	±25	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	±25	kV
Peak Pulse Power (t_p = 8/20μs)	P_{PP}	70	W
Peak Pulse Current (t_p = 8/20μs)	I_{PP}	5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction Temperature	T_J	-55 ~ +125	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	8	V
Reverse Breakdown Voltage	$V_{(BR)}$	I_T = 1mA	8.5	-	12	V
Reverse Leakage Current	I_R	V_{RWM} = 8V	-	-	100	nA
Clamping Voltage	V_C	I_{PP} = 1A, tp = 8/20μs I_{PP} = 5A, tp = 8/20μs	- -	- -	12 14	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHZ	-	8	10	pF

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

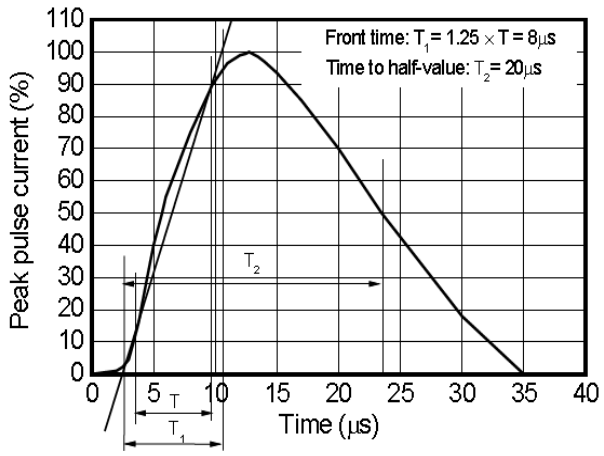


Fig 1 8/2 0μs waveform per IEC61000-4-5

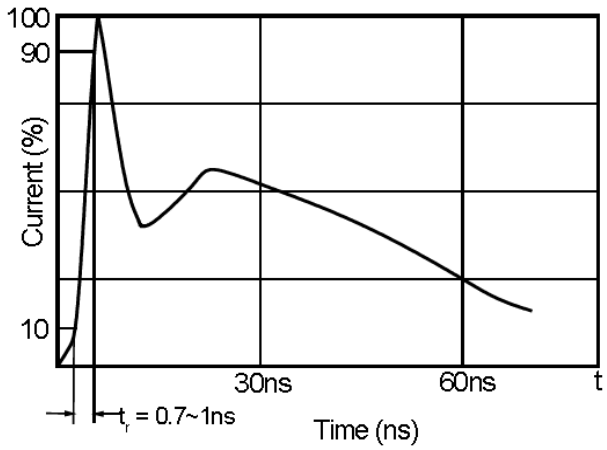


Fig 2 ESD pulse waveform according to IEC61000-4-2

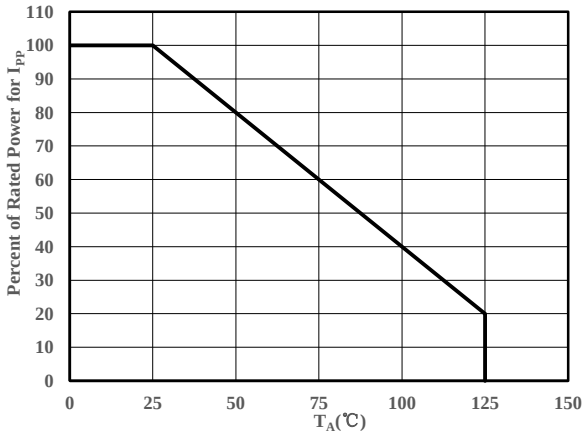
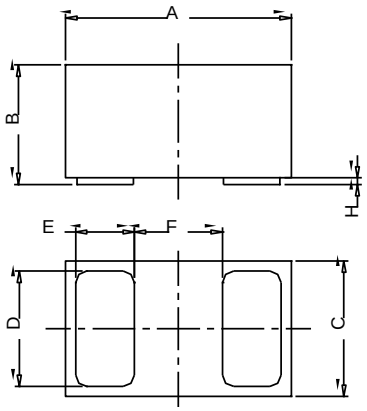


Fig 3 Power Derating Curve

Package Outline Dimensions (Unit: mm)



DFN1006-2			
Dimension	**Min.**	**Typ.**	**Max.**
A	0.95	1.00	1.075
B	0.45	0.50	0.55
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

