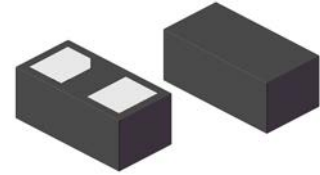


GSEN5B025 ESD Protection Diode

Features

- Bi-directional transient voltage suppressor
- Low leakage
- Response time is typically < 1 ns
- IEC61000-4-2 level 4 ESD protection
- UL-94 V-0 / Green EMC



DFN0603



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
ESD Voltage IEC61000-4-2 Air	V _{ESD} - Air	±25	kV
ESD Voltage IEC61000-4-2 Contact	V _{ESD} - Contact	±20	kV
Peak Pulse Power (8/20μs)	P _{PK}	60	W
Junction Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C
Peak Pulse Current (8/20μs)	I _{PP}	3.0	A

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Peak Voltage	V _{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6.0	7.5	9.0	V
Reverse Current	I _R	V _{RWM} =5V	-	-	0.5	μA
Clamping Voltage	V _C	I _{pp} =1A (8x20μs pulse)	-	-	12	V
Clamping Voltage	V _C	I _{pp} =3A (8x20μs pulse)	-	18	20	V
Capacitance	C	V _R =0V, f=1MHz	0.2	0.25	0.3	pF

Ratings and Characteristics Curves

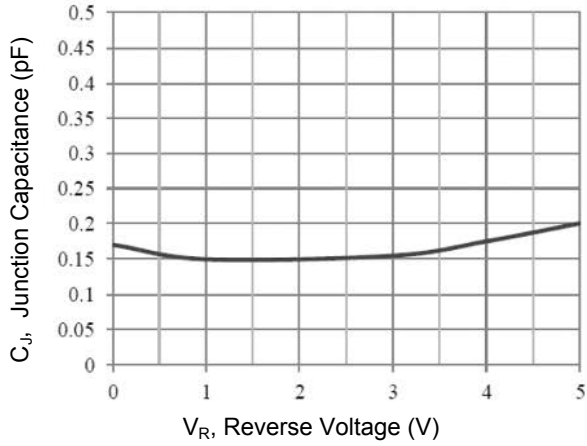


Figure 1. Junction Capacitance vs. Reverse Voltage

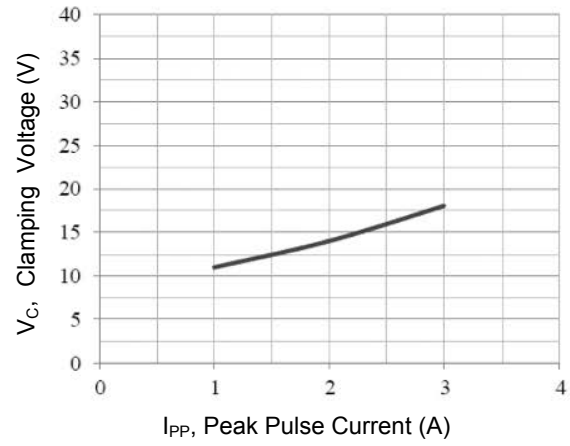


Figure 2. Clamping Voltage vs. Peak Pulse Current

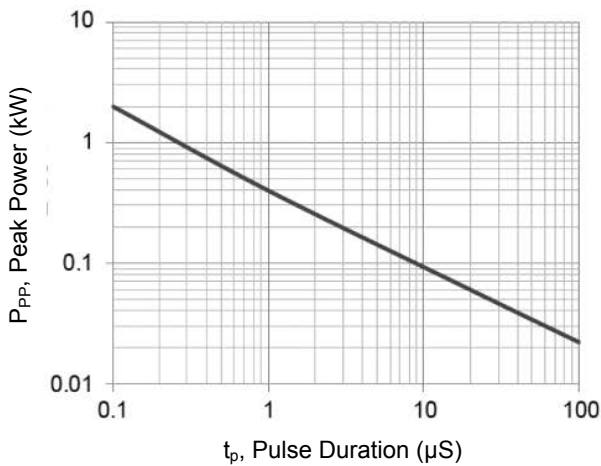


Figure 3. Peak Pulse Power vs. Pulse Time

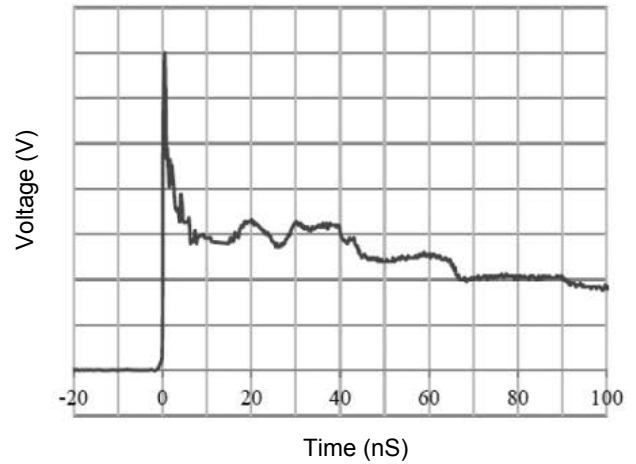


Figure 4. IEC61000-4-2 Pulse Waveform

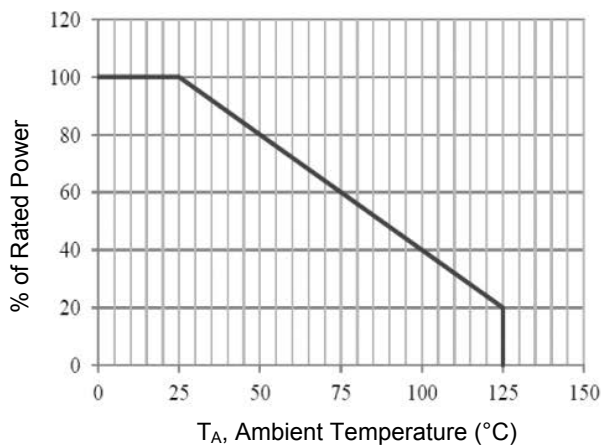


Figure 5. Power Derating Curve

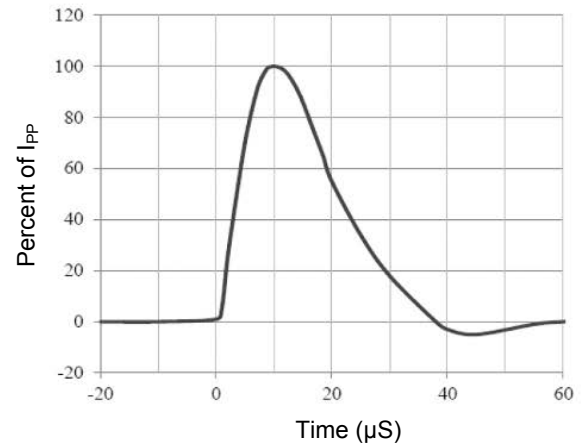
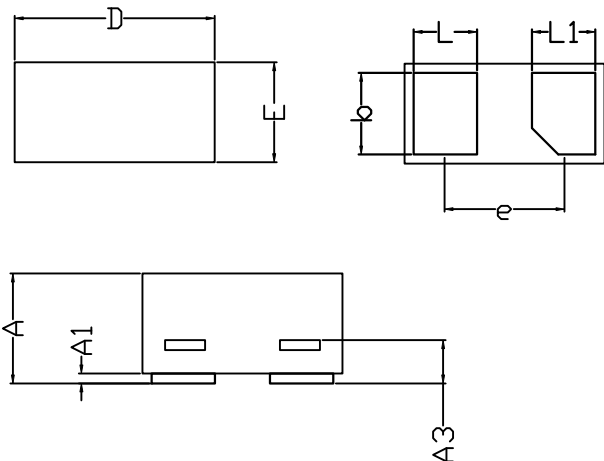


Figure 6. Pulse Waveform-8/20 μ s

Package Outline Dimensions (DFN0603)



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.23	-	0.33
A1	0.00	-	0.05
A3	0.102 REF		
D	0.55	0.60	0.65
E	0.25	0.30	0.35
b	0.215	0.245	0.275
L	0.160	0.190	0.220
L1	0.160	0.190	0.220
e	0.355 BSC		

Order Information

MPN	Package	Marking	Quantity	HSF Status
GSEN5B025	DFN0603	G	15,000pcs / Reel	RoHS compliant