

GSE240SB1N1F

ESD Protection Diode

Product Description

It is designed to protect sensitive electronics from damage due to electrostatic discharge (ESD) and other transient events.

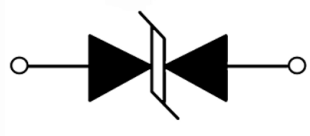
Features

- Reverse Working Voltage: 24V
- IEC61000-4-2(ESD) $\pm 15\text{KV}$ (Air)
- IEC61000-4-2(ESD) $\pm 12\text{KV}$ (Contact)
- IEC61000-4-4 (EFT) 40A (5/50ns).
- IEC61000-4-5 (Lightning) 2A (8/20 μs).

Mechanical Data

- DFN1006-2L. Package
- RoHS Compliant and Halogen Free

Package and Pin Assignment

DFN1006-2L	Equivalent Circuit
	

Ordering and Marking Information

GS P/N	Package	Marking	Quantity / Reel
GSE240SB1N1F	DFN1006-2L	24R	10,000 PCS
GSE240SB1N1F - Product Code: GSE240SB1 - Package Code: N1 for DFN1006-2L - Green Level: F for RoHS Compliant and Halogen Free			
Marking Information			
24R		- Product Code: 24R	

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

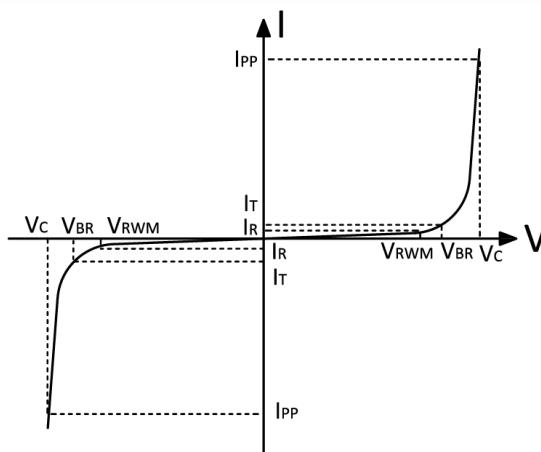
Symbol	Parameter	Value	Unit
P _{PP}	Peak Pulse Power (t _p =8/20μs)	90	W
I _{PP}	Peak Pulse Current (t _p =8/20μs)	2	A
V _{ESD}	ESD Per IEC61000-4-2 (Air)	±15	KV
	ESD Per IEC61000-4-2 (Contact)	±12	KV
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _L	Lead Soldering Temperature (10 seconds)	260	°C

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V _{RWM}	Reverse Working Voltage	-			24	V
V _{BR}	Breakdown Voltage	I _T = 1mA	26.7			V
I _R	Reverse Leakage Current	V _{RWM} =24V		0.1	0.5	μA
V _C	Clamping Voltage	I _{PP} =20A (8/20μs)		40	45	V
C _J	Junction Capacitance	V _R =0V, f=1MHz		0.3	0.5	pF

Electrical Parameters

Symbol	Parameter
I _{PP}	Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Peak Reverse Working Voltage
I _R	Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current



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

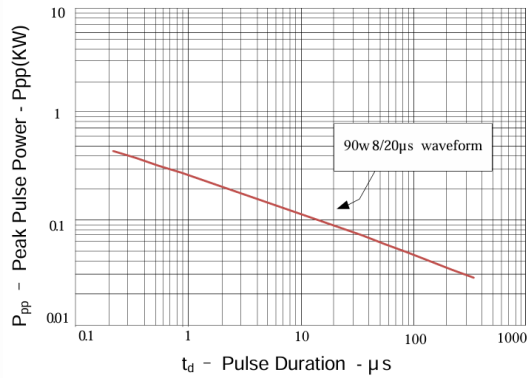


Fig 1. Peak Pulse Power vs. Pulse Time

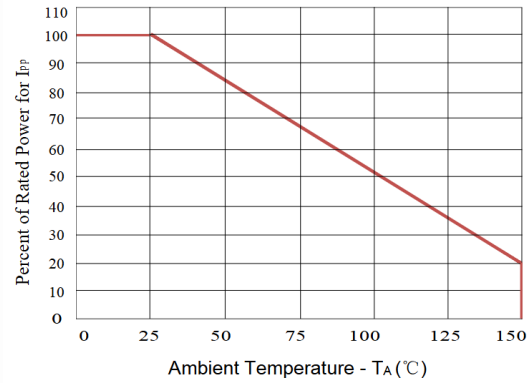


Fig 2. Power Derating Curve

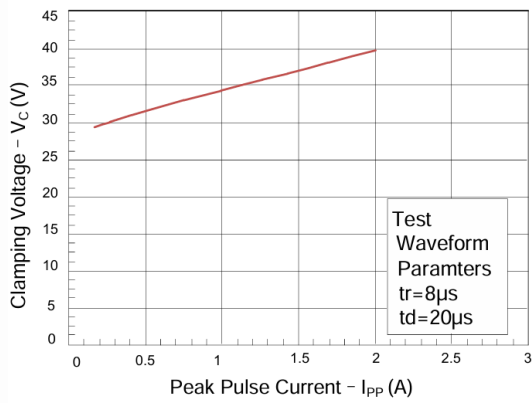


Fig 3. V_C vs. I_{PP} (8 X 20μs Pulse)

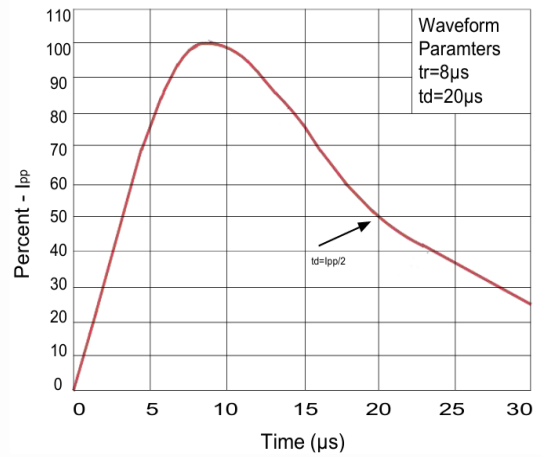
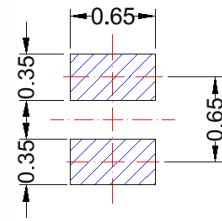
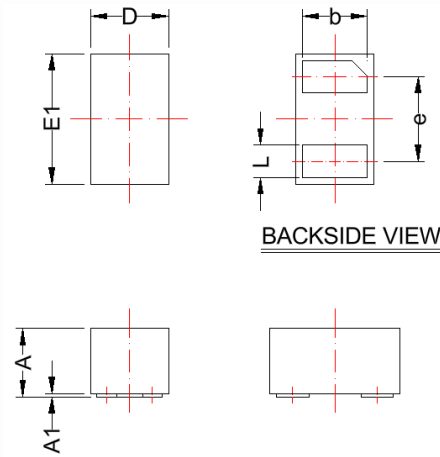


Fig 4. 8 X 20μs Pulse Waveform

DFN1006-2L

Package Dimension

Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.45	0.60	0.018	0.024
A1	0.00	0.05	0.000	0.002
b	0.45	0.55	0.018	0.022
D	0.55	0.65	0.022	0.026
E1	0.95	1.05	0.037	0.041
e	0.65 BSC		0.026 BSC	
L	0.20	0.30	0.008	0.012

NOTE:

Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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