

GSE150HU1NLF

ESD Protection Diode

Product Description

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

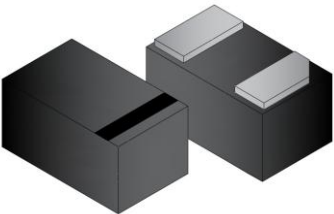
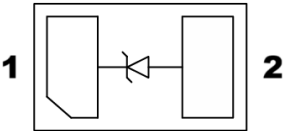
Features

- Operating Voltage: 15V.
- Unidirectional Configurations
- IEC61000-4-2(ESD) $\pm 30\text{kV}$ (Air)
- IEC61000-4-2(ESD) $\pm 30\text{kV}$ (Contact)
- IEC61000-4-4(EFT) 40A (5/50ns)
- IEC61000-4-5(Lighting) 100A (8/20 μs)

Mechanical Data

- DFN1610-2L Package
- RoHS Compliant and Halogen Free

Package and Pin Assignment

DFN1610-2L			Equivalent Circuit		
			 Bottom View		
Pin	Symbol	Description	Pin	Symbol	Description
1	K	Cathode	2	A	Anode

Ordering and Marking Information

GS P/N	Package	Marking	Quantity / Reel
GSE150HU1NLF	DFN1610-2L	BHW	10,000PCS
GSE150HU1NLF - Product Code: GSE150HU1 - Package Code: NL for DFN1610-2L - Green Level: F for RoHS Compliant and Halogen Free			
Marking Information			
		- Product Code: BHW Bar denotes Cathode	

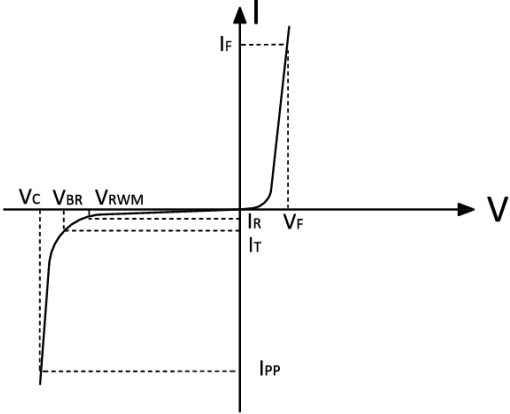
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
P _{PP}	Peak Pulse Power (t _p =8/20μs)	3300	W
I _{PP}	Peak Pulse Current (t _p =8/20μs)	100	A
V _{ESD}	ESD Per IEC61000-4-2 (Air)	±30	KV
	ESD Per IEC61000-4-2 (Contact)	±30	KV
T _J	Operating Junction Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
TL	Lead Soldering Temperature	260 (10 sec.)	°C

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V _{RWM}	Reverse Working Voltage	-			15	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	16.8			V
I _R	Reverse Leakage Current	V _{RWM} =15V			1	μA
V _C	Clamping Voltage	I _{PP} =100A (8/20μs)		29	33	V
C _J	Junction Capacitance	V _R =0V, f=1MHz		320	400	pF

Electrical Parameters

Symbol	Parameter	
I _{PP}	Reverse Peak Pulse Current	
V _C	Clamping Voltage @ I _{PP}	
V _{RWM}	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)

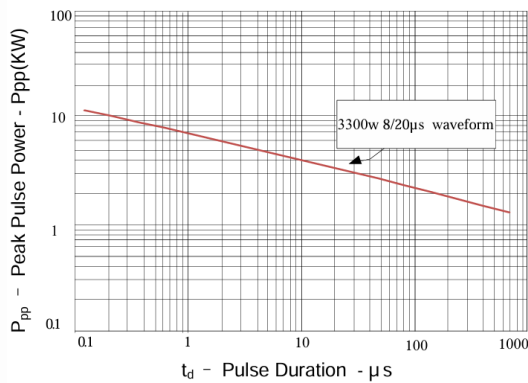


FIG 1. Peak Pulse Power vs. Pulse Time

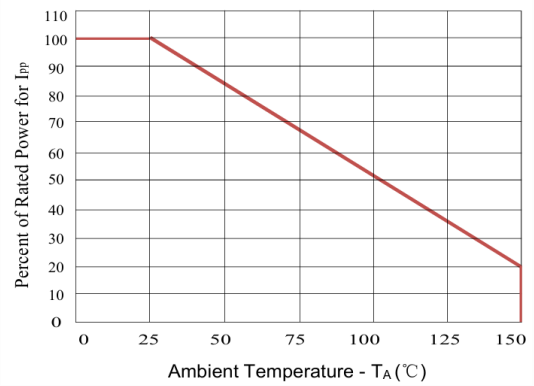


FIG 2. Power Derating Curve

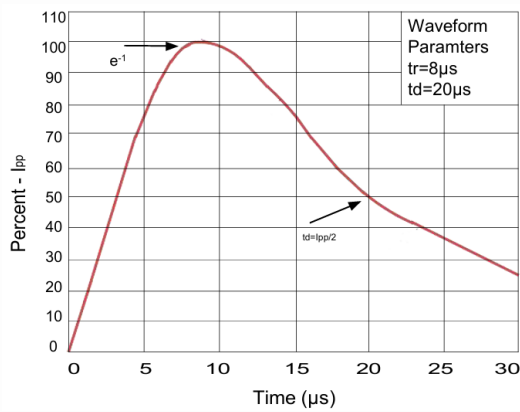


FIG 3. 8X20μs Pulse Waveform

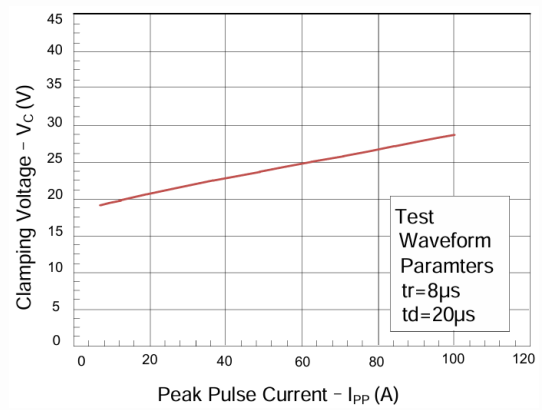
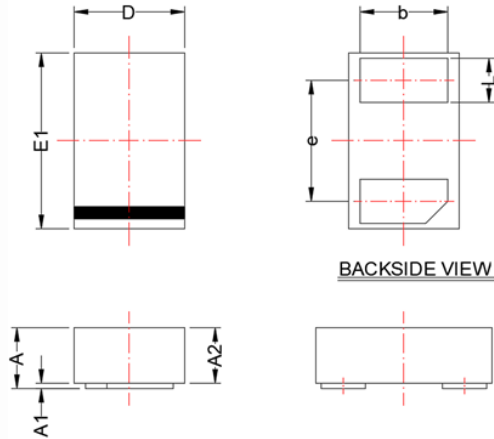


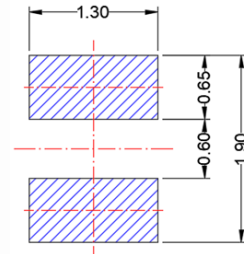
FIG 4. Clamping Voltage vs. I_{PP}

DFN1610-2L

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
b	0.75	0.85	0.030	0.033
D	0.95	1.05	0.037	0.041
E1	1.55	1.65	0.061	0.065
e	1.10 BSC		0.043 BSC	
L	0.35	0.45	0.014	0.018

NOTE:

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

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