GOOD-ARK
SEMICONDUCTOR

GSEY3B5500
ESD Protection Diode

Features

- 3200W peak pulse power (T_p=8/20μs)
- DFN1610 package
- Fast response time, typically < 1ns
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV (Air) ESD protection
- IEC 61000-4-2 ±30kV (Contact) ESD protection
- IEC 61000-4-5 160A (8/20us) SURGE protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- RoHS compliant

DFN1610

Schematic Diagram

Applications

- Power Line
- Power Management

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	3200	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	160	A
Operating Temperature	T_J	-55 To +125	°C
Storage Temperature	T_{STG}	-55 To +150	°C

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	3.8	-	-	V
Reverse Leakage Current	I_R	V_R=3.3V	-	-	0.5	μA
Clamping Voltage[1]	V_C	I_{PP}=160A	-	-	20	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	550	-	pF

Note:

1. IEC61000-4-5

Typical Characteristic Curves

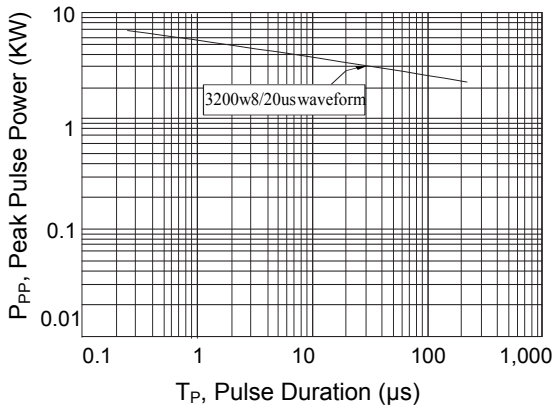


Figure 1. Peak Pulse Power Rating Curve

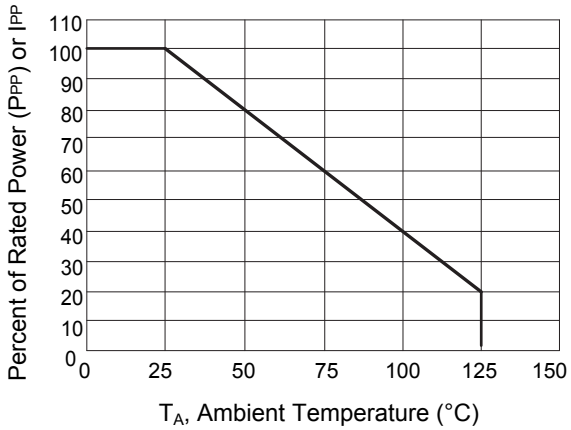


Figure 2. Power Derating Curve

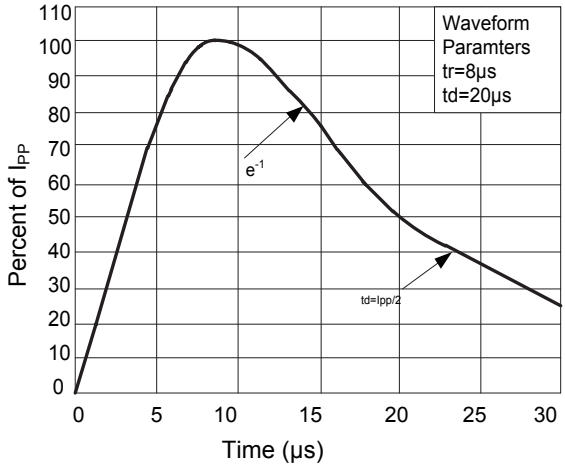


Figure 3. Pulse Waveform

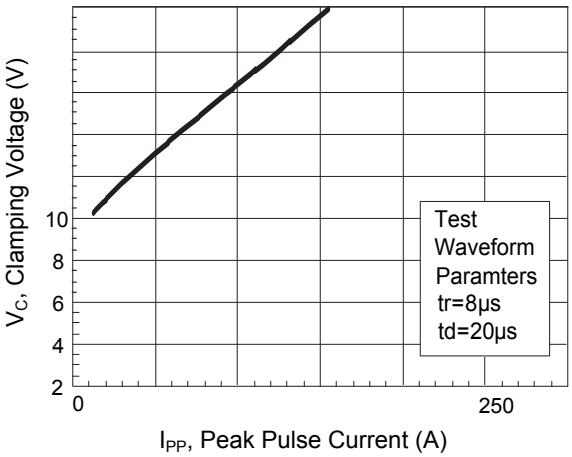
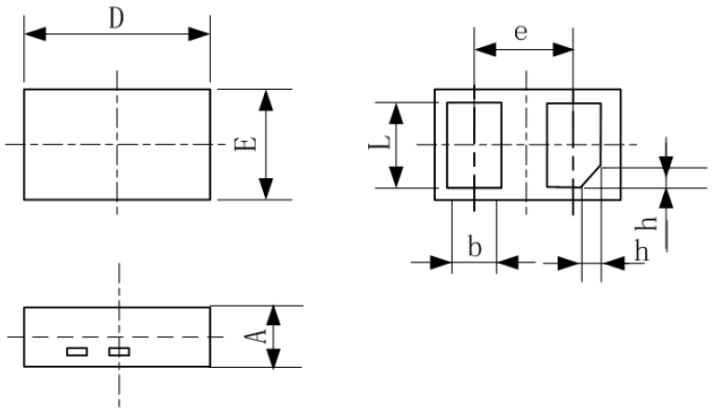


Figure 4. Clamping Voltage vs. I_{pp}

Package Outline Dimensions (DFN1610)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.450	0.550	0.018	0.022
D	1.550	1.650	0.061	0.065
E	0.950	1.050	0.037	0.041
b	0.350	0.450	0.014	0.018
L	0.750	0.850	0.030	0.033
e	1.100 BSC		0.043 BSC	
h	0.150	0.250	0.006	0.010

Order Information

Device	Package	Carrier	Quantity	HSF Status
GSEY3B5500	DFN1610	Tape & Reel	10,000 pcs / Reel	RoHS Compliant