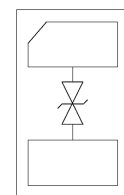


Features

- 360W peak pulse power (8/20μs)
- Ultra low capacitance: 1pF typical
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Protects one power line or data line
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30KV
 - Contact discharge: ±30KV
 - IEC 61000-4-5 (lightning) 18A (8/20μs)
- RoHS compliant



DFN1610



Schematic Diagram

Applications

- USB ports
- Smart phones
- Wireless systems
- Ethernet 10/100/1000 base T

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{PK}	360	W
Peak Pulse Current (8/20μs)	I _{PP}	18	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}	-	-	-	5	V
Breakdown Voltage	V _{BR}	I _T =1mA	6.0	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =5V	-	-	0.2	μA
Clamping Voltage	V _C	I _{PP} =1A (8 x 20μs pulse)	-	-	10	V
Clamping Voltage	V _C	I _{PP} =18A (8 x 20μs pulse)	-	-	20	V
Junction Capacitance	C _J	V _R =0V, f=1MHz	-	1	-	pF

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

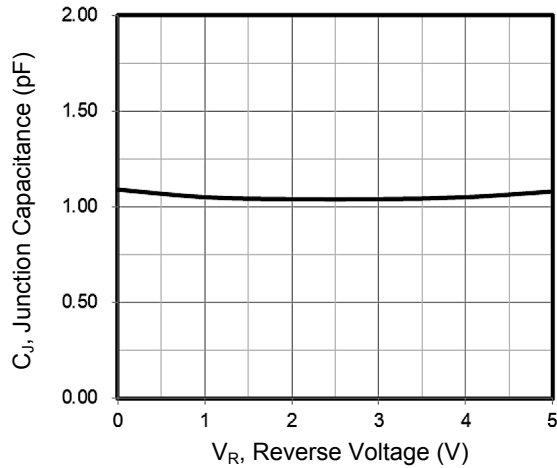


Figure 1. Junction Capacitance vs. Reverse Voltage

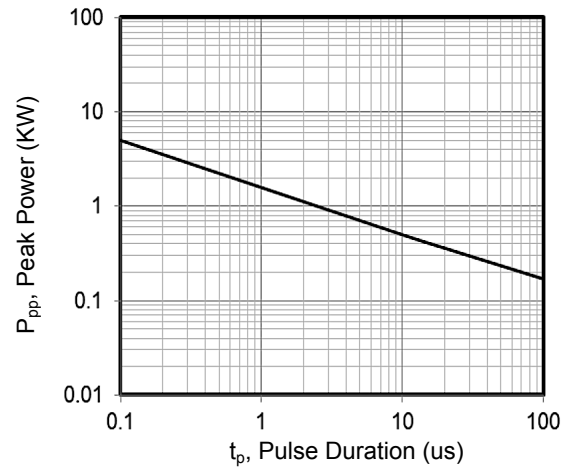


Figure 2. Peak Pulse Power vs. Pulse Time

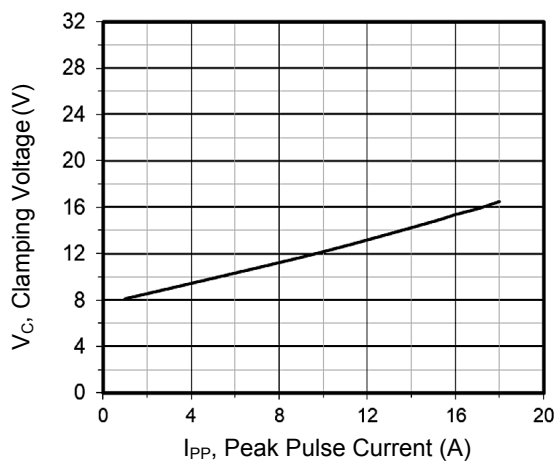


Figure 3. Clamping Voltage vs. Peak Pulse Current

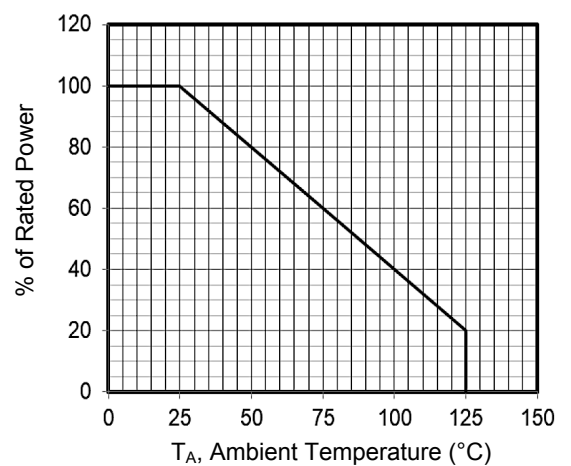


Figure 4. Power Derating Curve

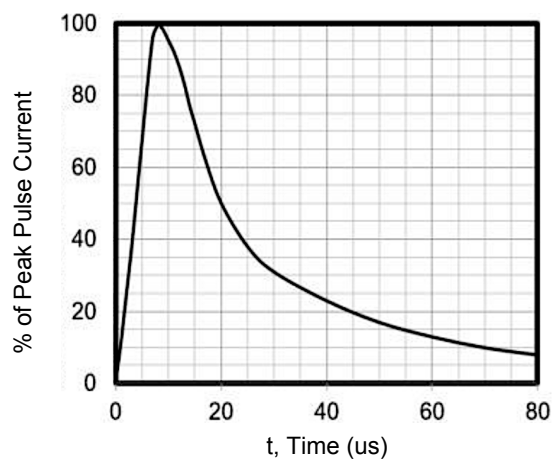
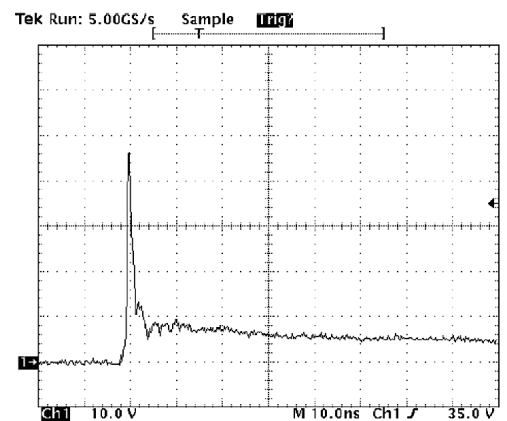


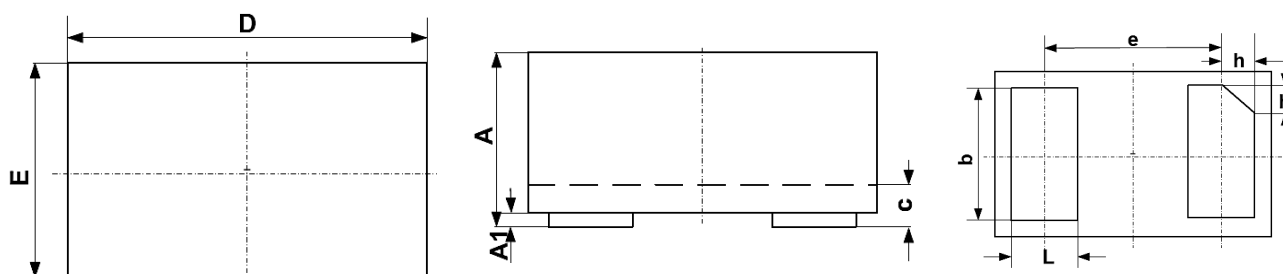
Figure 5. 8 x 20us Pulse Waveform



Note: Data is taken with a 10x attenuator

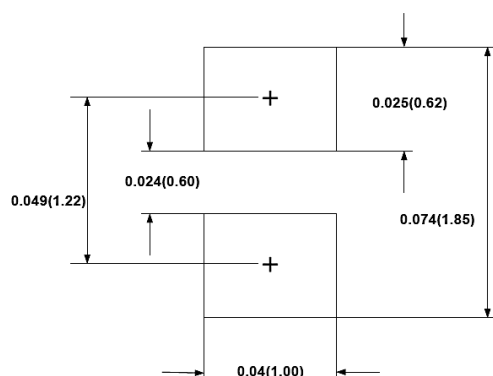
Figure 6. ESD Clamping Voltage
8kV Contact Per IEC 61000-4-2

Package Outline Dimension (DFN1610)



Symbol	Dimensions In Millimeters		Dimensions In 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	0.034
c	0.10	0.20	0.004	0.008
D	1.55	1.65	0.062	0.066
e	1.10 BSC		0.044 BSC	
E	0.95	1.05	0.038	0.042
L	0.35	0.45	0.014	0.018
h	0.15	0.25	0.006	0.010

Recommended Pad Layout



Unit: Inches (Millimeters)

Order Information

Device	Package	Marking	Carrier	Quantity
GSEY5B010	DFN1610	51P	Tape & Reel	3,000 Pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com