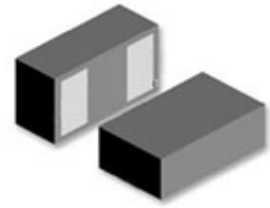
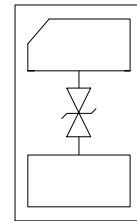


Features

- Ultra small package: 0.6x0.3x0.3mm
- Very low capacitance
- Protects one data or power line
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- 2-pin lead less package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$, Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-5 (Lightning) 8A (8/20 μs)
- RoHS compliant



DFN0603



Schematic Diagram

Applications

- Cellular handsets and accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P_{pk}	100	W
Peak Pulse Current (8/20 μs)	I_{pp}	8	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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}	-	-	-	5	V
Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	-	8	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$	-	-	0.1	μA
Clamping Voltage	V_C	$I_{pp}=1\text{A}$ (8 x 20 μs pulse)	-	-	8.5	V
		$I_{pp}=8\text{A}$ (8 x 20 μs pulse)	-	-	12.5	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $F=1\text{MHz}$	-	-	20	pF

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

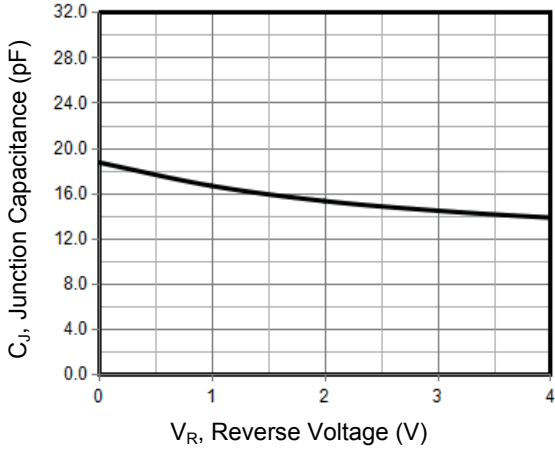


Figure 1. Junction Capacitance vs. Reverse Voltage

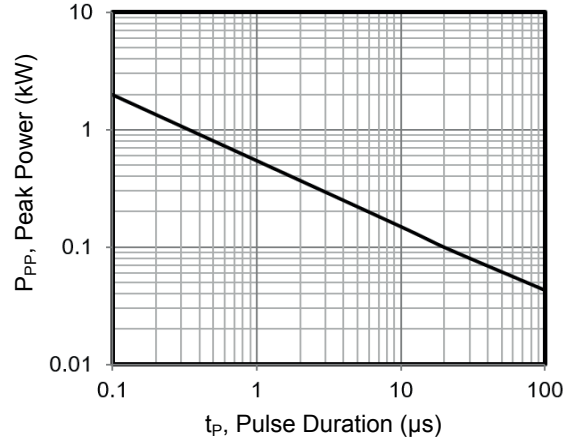


Figure 2. Peak Pulse Power vs. Pulse Time

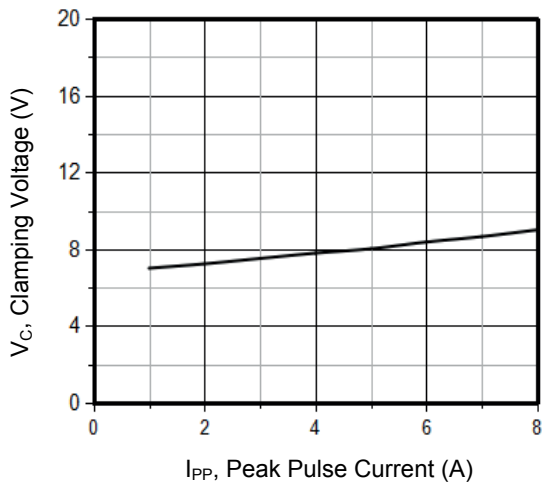


Figure 3. Clamping Voltage vs. Peak Pulse Current

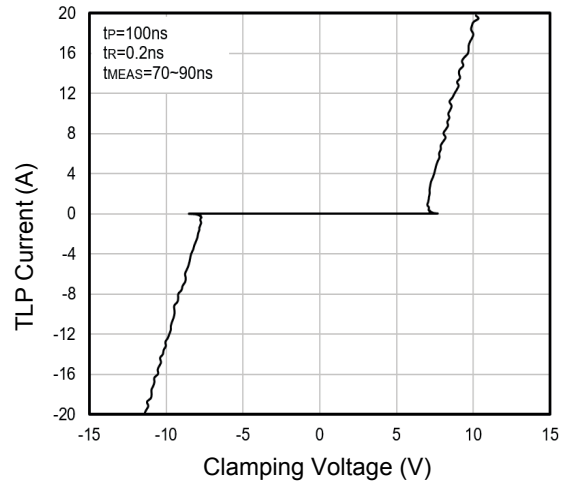


Figure 4. TLP Measurement

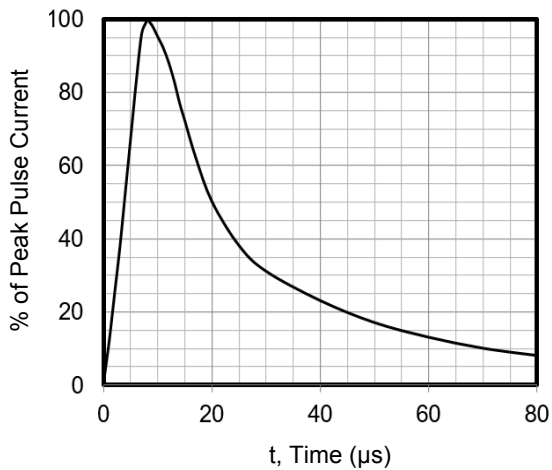


Figure 5. 8 X 20 μs Pulse Waveform

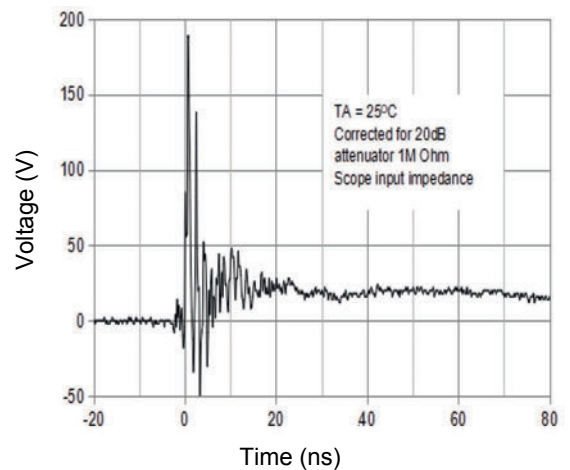
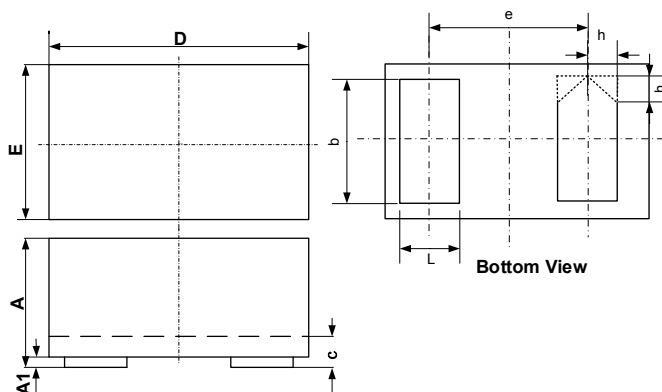


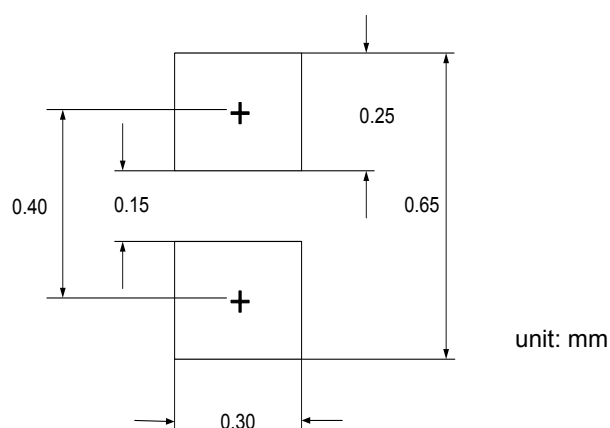
Figure 6. ESD Clamping Voltage
8kV Contact per IEC61000-4-2

Package Outline Dimensions (DFN0603)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.230	0.330	0.009	0.013
A1	0.000	0.050	0.000	0.002
b	0.215	0.275	0.008	0.011
c	0.120	0.180	0.005	0.007
D	0.550	0.650	0.022	0.026
e	0.355 BSC		0.014 BSC	
E	0.250	0.350	0.010	0.014
L	0.160	0.220	0.006	0.009
h	0.079 BSC		0.003 BSC	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSEN5B200	DFN0603	5A	Tape & Reel	10,000 pcs / Reel