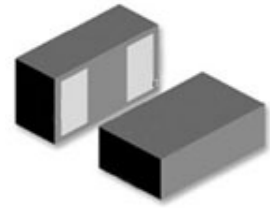


Features

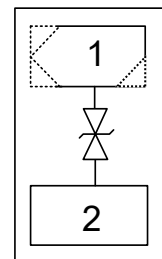
- Low capacitance
- Protects one data or power line
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- 2-Pin leadless package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- RoHS compliant

Applications

- Cellular handsets and accessories
- Personal digital assistants
- Notebooks and handhelds
- Portable instrumentation
- Digital cameras
- Peripherals
- Audio players
- Keypads, side keys, USB 2.0, LCD displays



DFN0603



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P_{pk}	80.5	W
Peak Pulse Current (8/20 μs)	I_{pp}	7	A
ESD Per IEC 61000-4-2 (Air)	V_{ESD}	± 30	kV
ESD Per IEC 61000-4-2 (Contact)	V_{ESD}	± 30	kV
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	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$	-	-	0.2	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$ (8 x 20 μs pulse)	-	-	8	V
Clamping Voltage	V_C	$I_{PP}=7\text{A}$ (8 x 20 μs pulse)	-	-	11.5	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$	-	13	-	pF

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

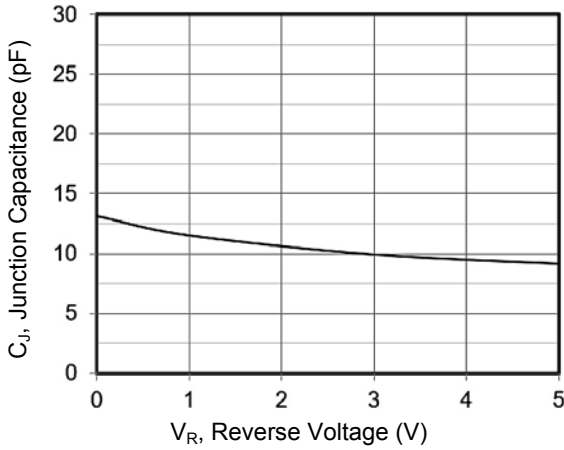


Figure 1. Junction Capacitance vs. Reverse Voltage

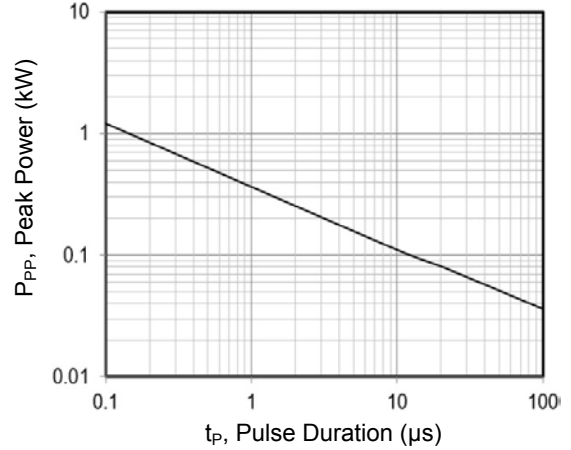


Figure 2. Peak Pulse Power vs. Pulse Time

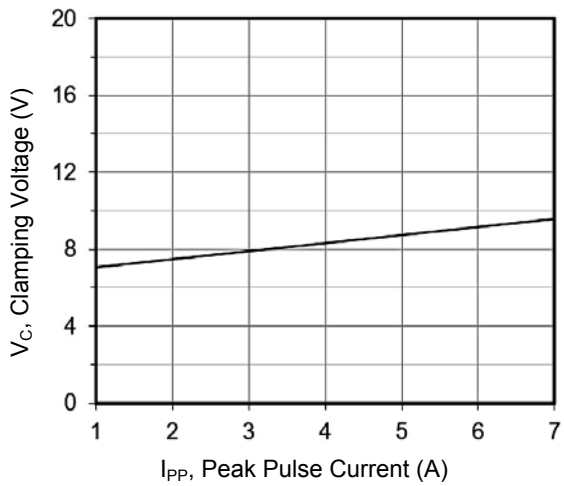


Figure 3. Clamping Voltage vs. Peak Pulse Current
 ($t_p=8/20\mu\text{s}$)

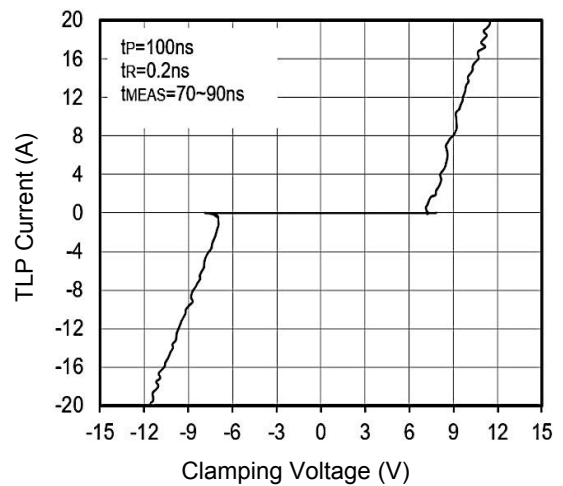


Figure 4. TLP Measurement

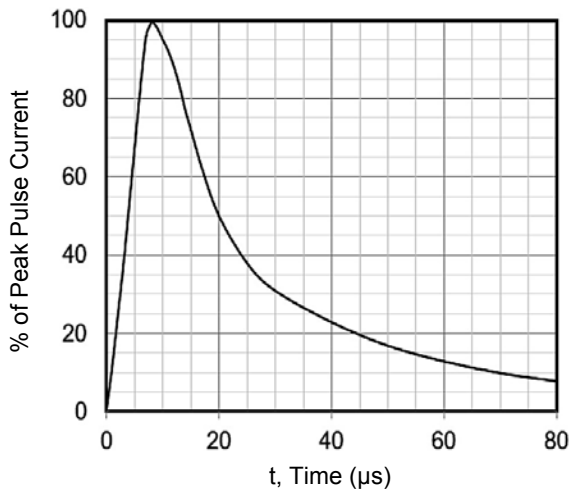


Figure 5. 8 X 20 μs Pulse Waveform

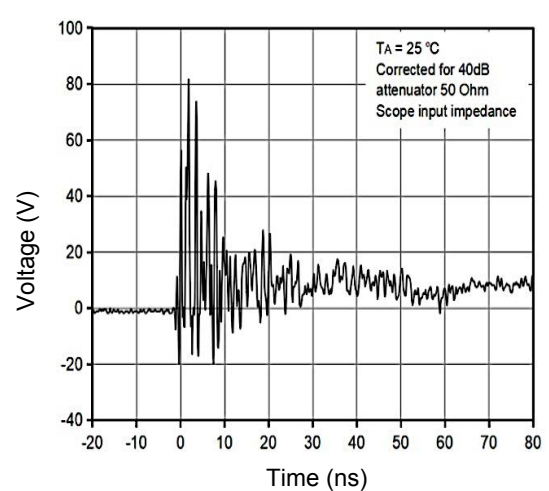
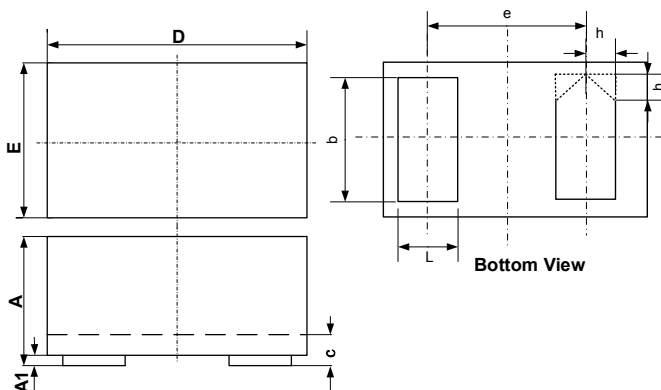


Figure 6. ESD Clamping Voltage

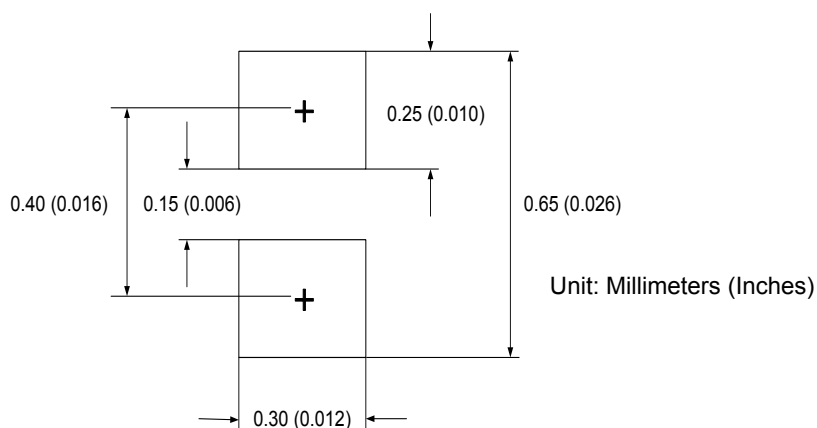
8 kV Contact Per IEC61000-4-2

Package Outline Dimensions (DFN0603)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.230	0.340	0.009	0.013
A1	0.000	0.050	0.000	0.002
b	0.200	0.300	0.008	0.012
c	0.050	0.180	0.002	0.007
D	0.550	0.650	0.022	0.026
e	0.360 BSC		0.014 BSC	
E	0.250	0.350	0.010	0.014
L	0.130	0.240	0.005	0.009
h	0.079 BSC		0.003 BSC	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSEN5B130	DFN0603	AP	Tape & Reel	10,000 Pcs / Reel

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