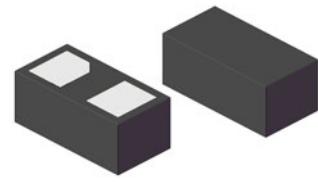


Features

- Excellent clamping capability
- Low leakage current
- Fast response time
- Typical Response Time is < 1ns
- Protection one data / power line to:
IEC 61000-4-2 (ESD) ±30kV contact; ±30kV air



DFN0603



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Per Human Body Model	V_{ESD}	30	kV
Power Dissipation @ $T_A=25^\circ\text{C}$	P_D	200	mW
Maximum Temperature For Soldering During 10s	T_L	260	°C
Junction Temperature Range	T_J	-55 to 155	°C
Storage Temperature Range	T_{STG}	-55 to 155	°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Leakage Current @ V_{RWM}	I_R	-	-	-	100	nA
Reverse Breakdown Voltage ($T_A=25^\circ\text{C}$)	V_{BR}	$I_T=1\text{mA}$	5.1	-	-	V
Reverse Holding Voltage	V_{HOLD}	$I_T=50\text{mA}$	5.1	-	-	V
Clamping Voltage ^{1,2,3}	V_{CL}	$I_{PP}=16\text{A}, T_P=100\text{ns}$	-	9	-	V
		$V_{ESD}=8\text{kV}$	-	9	-	
		$I_{PP}=1\text{A}$	-	-	6.5	
		$I_{PP}=5\text{A}$	-	-	8.5	
		$I_{PP}=8\text{A}$	-	-	10	
Peak Pulse Current	I_{PP}	-	-	-	10	A
Peak Pulse Power (TP=8/20μS)	P_{PP}	-	-	-	80	W
Junction Capacitance	C_J	$V_R=0\text{V}, F=1\text{MHz}$	-	15	-	pF

Note:

- 1) TLP parameter: $Z_0=50\Omega$, $T_P=100\text{ns}$, $t_r=2\text{ns}$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
- 2) Contact discharge mode, according to IEC 61000-4-2.
- 3) Non-repetitive current pulse, according to IEC 61000-4-5.

Typical Characteristic Curves

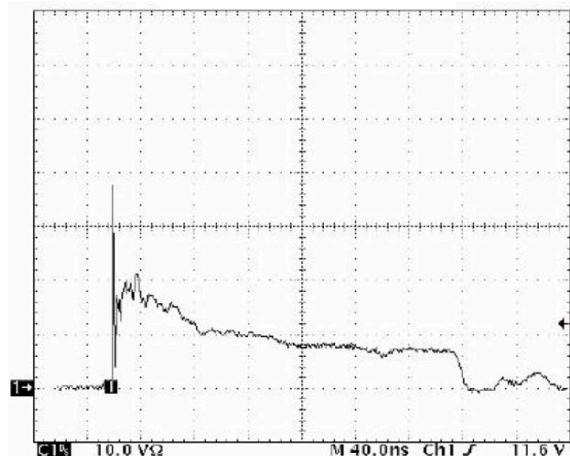


Figure 1. ESD Clamping Voltage Positive 8KV
 Contact per IEC 61000-4-2

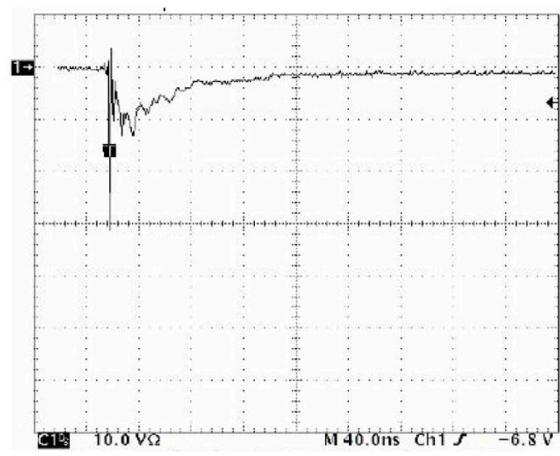


Figure 2. ESD Clamping Voltage Negative 8KV
 Contact per IEC 61000-4-2

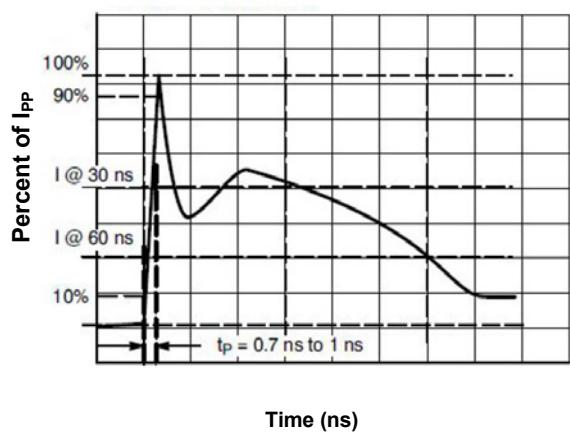


Figure 3. Pulse Waveform (IEC61000-4-2)

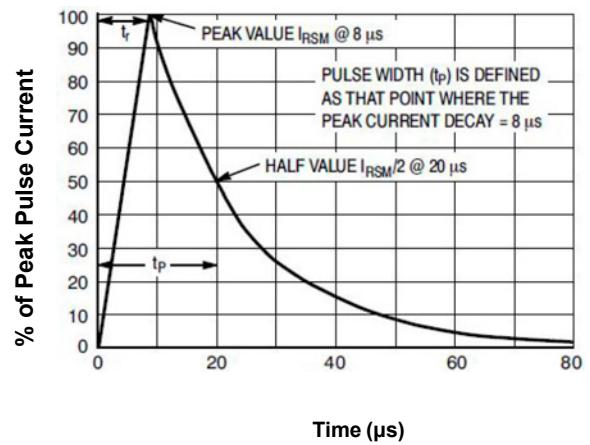
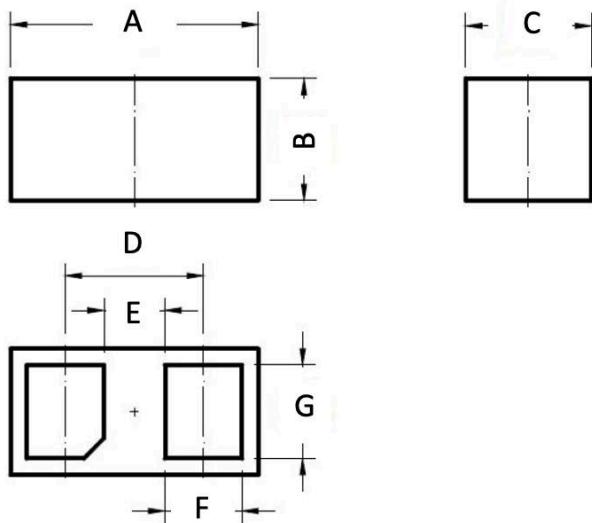


Figure 4. 5.8 x 20μs Pulse Waveform

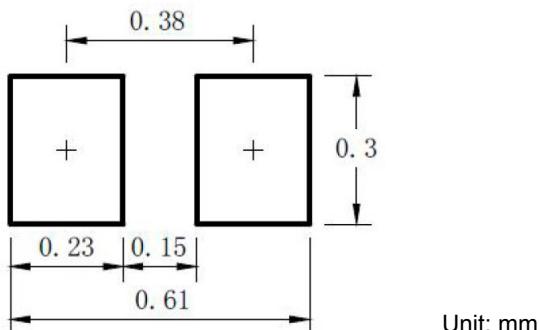
Package Outline Dimensions (DFN0603)



Symbol	Dimensions in Millimeters	
	Min	Max
A	0.58	0.64
B	0.27	0.33
C	0.28	0.34
D	0.34	
E	0.12	0.18
F	0.16	0.22
G	0.20	0.26

Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar Extrusions.

Recommended Pad Layout



Order Information

Device	Package	Marking	Quantity	HSF Status
GSEN5B154	DFN0603	A	15,000pcs / Reel	RoHS Compliant