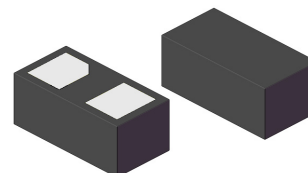
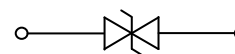


Features

- 100W peak pulse power ($t_p = 8/20\mu s$)
- DFN0603 (0201) package
- Bidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ($C_j=0.2pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 15kV$ contact $\pm 15kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS compliant



DFN0603-X2



Schematic Diagram

Applications

- USB3.0, Firewire, DVI, HDMI, S-ATA
- Thunderbolt, Display Port
- Mobile HDMI Link, MDDI, MIPI, SWP / NFC

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu S$)	P_{PP}	100	W
ESD Contact/Air Discharge (IEC-61000-4-2)	V_{ESD}	15/15	kV
Peak Pulse Current ($t_P = 8/20\mu S$)	I_{PP}	5	A
Junction Temperature	T_J	-55 to +125	$^\circ C$
Storage Temperature	T_{STG}	-55 to +150	$^\circ C$
Maximum Lead Solder Temperature(10 second duration)	T_L	260	$^\circ C$

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6.5	8.5	-	V
Reverse Leakage Current	I_R	$V_R=5.0V$	-	5	100	nA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=5A$	-	-	20.5	V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$	-	135	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$	-	20	-	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	0.2	0.3	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

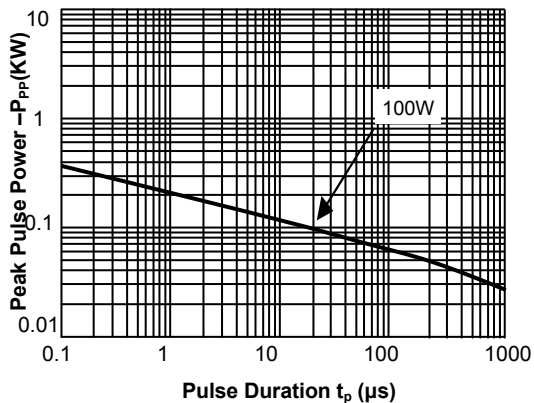


Fig.2 Pulse Derating Curve

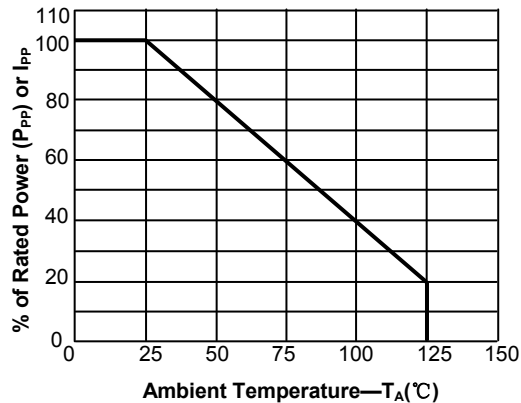


Fig.3 Pulse Waveform-8/20μs

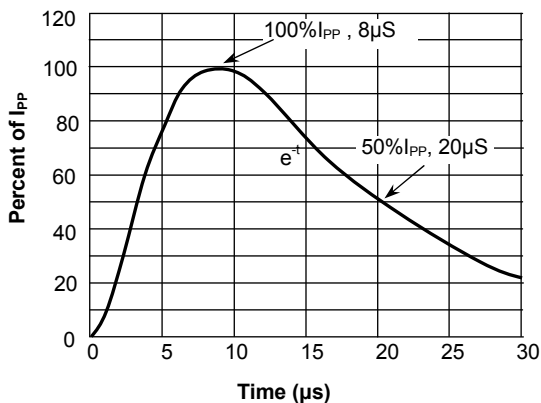


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

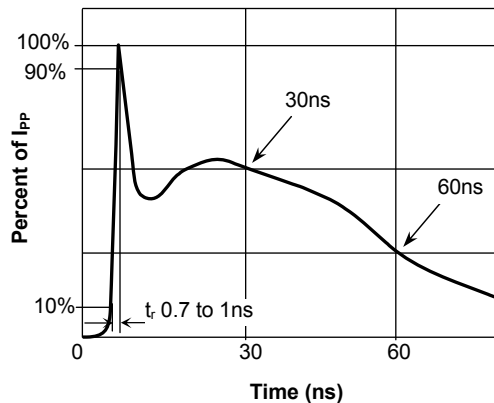


Fig.5 IEC61000-4-2 +8kV Contact Discharge

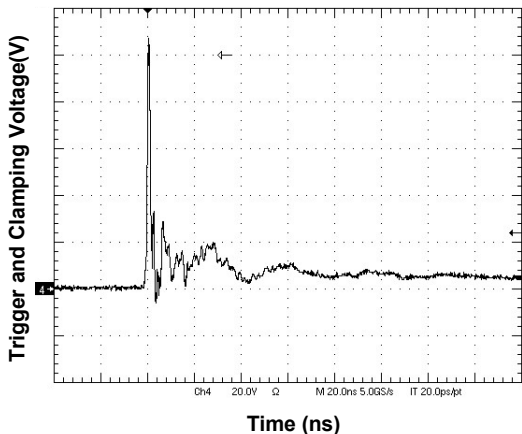
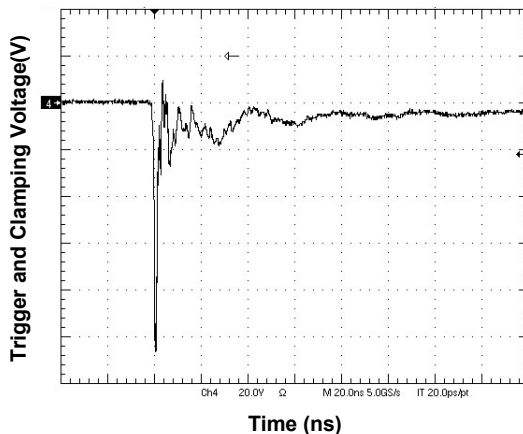


Fig.6 IEC61000-4-2 -8kV Contact Discharge

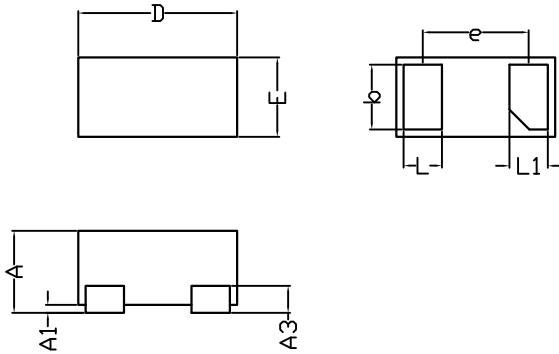


GSESUC5VD0603-2B

Ultra Low Capacitance ESD TVS

Product Dimensions

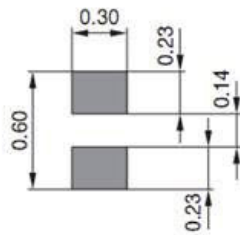
DFN0603-X2



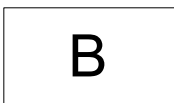
Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.23	-	0.33
A1	0.00	-	0.05
A3	0.102 REF		
D	0.55	0.60	0.65
E	0.25	0.30	0.35
b	0.215	0.245	0.275
L	0.115	0.145	0.175
L1	0.115	0.145	0.175
e	0.40 BSC		

Recommended Footprint

Unit: mm



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
GSESUC5VD0603-2B	DFN0603	Tape & Reel	15000pcs / Reel	RoHS Compliant