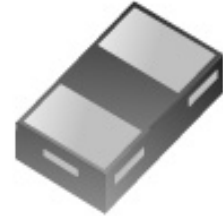


GSESUC5VD882-2B

Ultra Low Capacitance ESD TVS

Features

- 60Watts peak pulse power ($t_p = 8/20\mu s$)
- SOD-882 Package
- Bidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ($C_j = 0.3pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 10kV$ contact $\pm 15kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 3A (8/20 μs)



Package: SOD-882



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}	60	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	10/15	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	3	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	Conditions	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	$I_{PP} = 3A$	-	-	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	$V_R = 0V, f = 1MHz$	-	0.3	0.35	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

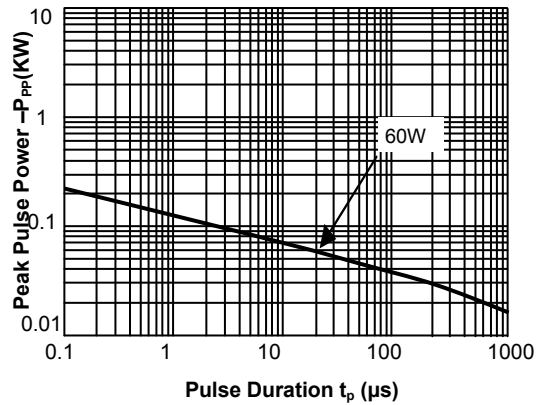


Fig.2 Pulse Derating Curve

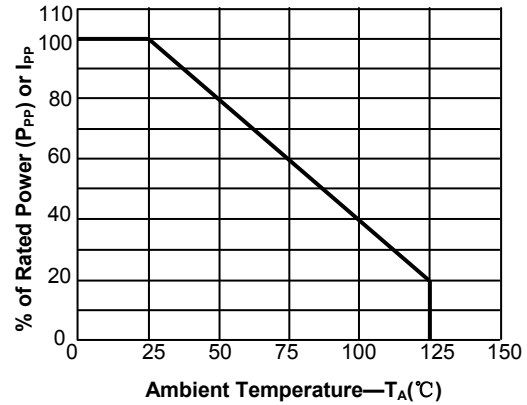


Fig.3 Pulse Waveform-8/20μs

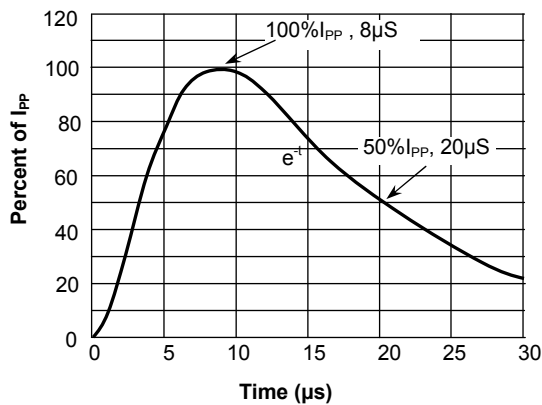


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

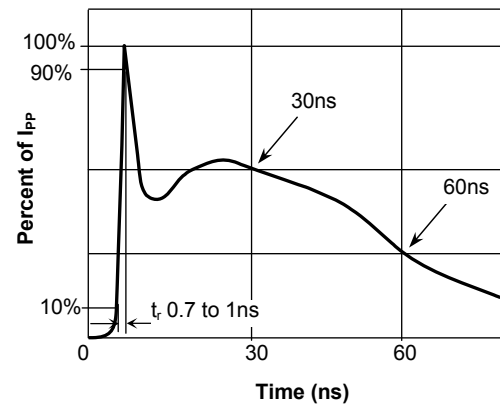


Fig.5 IEC61000-4-2 +8kV Contact Discharge

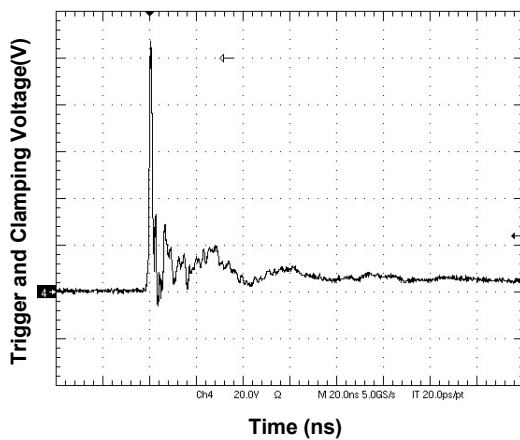
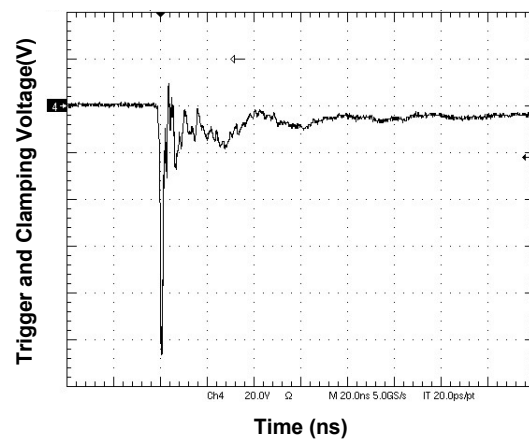


Fig.6 IEC61000-4-2 -8kV Contact Discharge

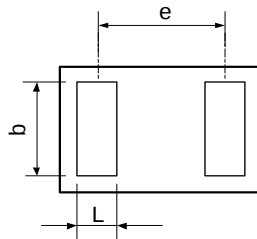
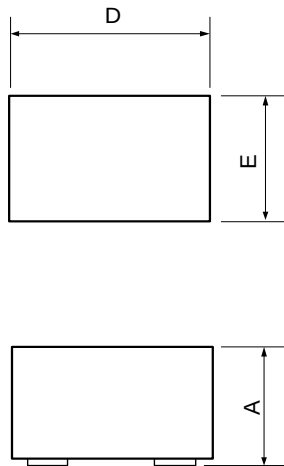


GSESUC5VD882-2B

Ultra Low Capacitance ESD TVS

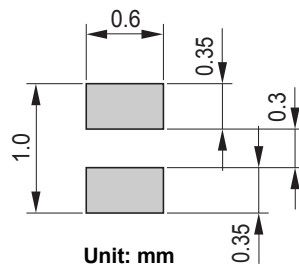
Package Outline Dimensions

SOD-882



Symbol	Milimeter		
	min	nom	max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
A	0.45	0.50	0.55
b	0.45	0.50	0.55
L	0.20	0.25	0.30
e	0.65BSC		

Recommended Pad Layout



Order Information

Device	Package	Marking	Quantity	HSF Status
GSESUC5VD882-2B	SOD-882	P	10,000pcs/reel	RoHS compliant