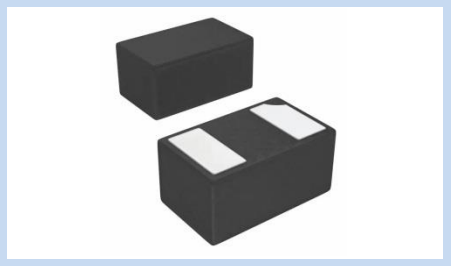
ESD Supressor AEC-Q101
5V Unidirectional SOD-882

ME51U9V8S882A

MERITEK

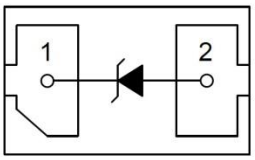
FEATURE

- IEC 61000-4-2 ESD: ±15KV (Air) ±8KV (Contact)
- ESD Protection for one Unidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- USB 3.0/USB 2.0
- MHL/MIPI/MDDI
- HDMI,Video Port, eSATA
- Smart Phones
- External Storage



RoHS

MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	±8	KV
ESD Voltage (Air discharge)		±15	
Peak Pulse Current (tp=8/20μs)	I_{PP}	4	A
Operating & Storage Temperature Range	T_J, T_{STG}	-55~+150	˚C

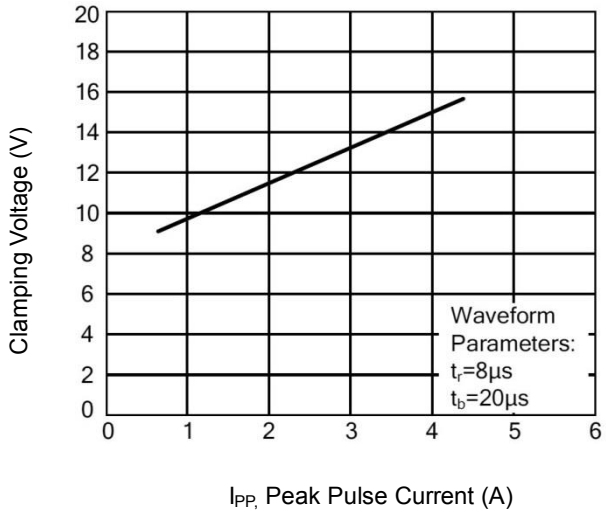
ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5	V
Reverse Breakdown Voltage	I_{BR}=1mA	V_{BR}	6	--	8.5	V
Reverse Leakage Current	V_R=5V	I_R	--	--	1	μA
Clamping Voltage	I_{PP}=1A, tp=8/20μs	V_C	--	--	9.8	V
	I_{PP}=4A, tp=8/20μs		--	--	15	
Clamping Voltage TLP	16A	V_C	--	24	--	V
Off State Junction Capacitance	Vdc=0, f=1MHz	C_J	--	0.6	--	pF

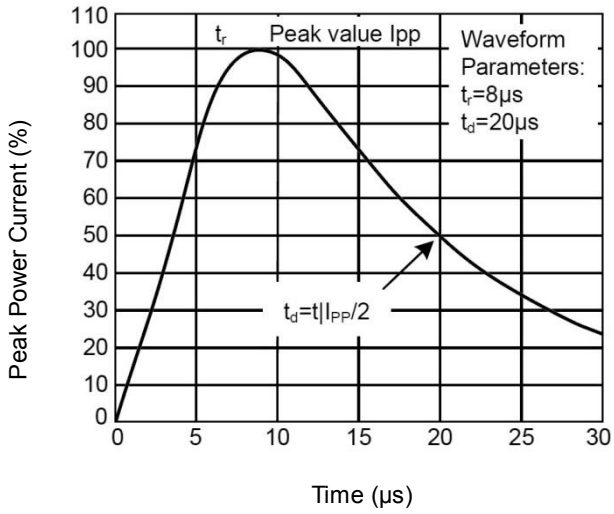
Notes:
1. T_J= 25ºC unless otherwise specified
2. Electrostatic Discharge Sensitivity Testing using Transmission Line Pulse(TLP) Model,See Figure 4.

CHARACTERISTIC CURVES

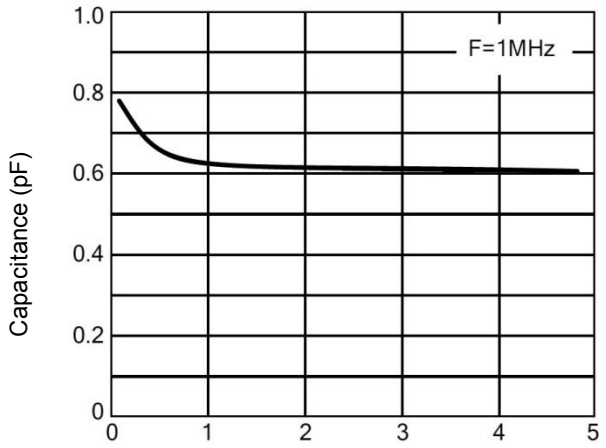
Clamping Voltage vs. Peak Pulse Current



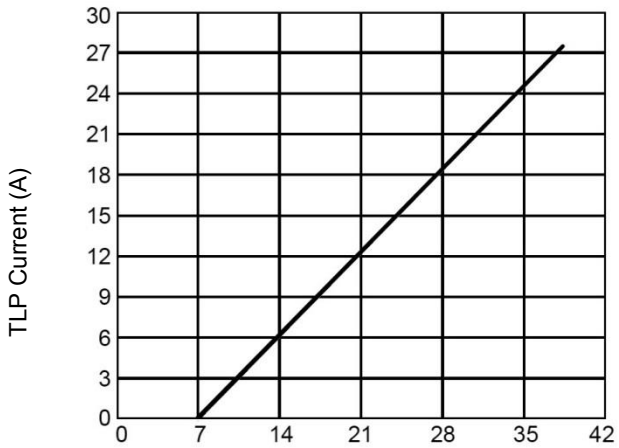
Pulse Waveforms



Capacitance vs. Reverse Voltage



TLP Measurement



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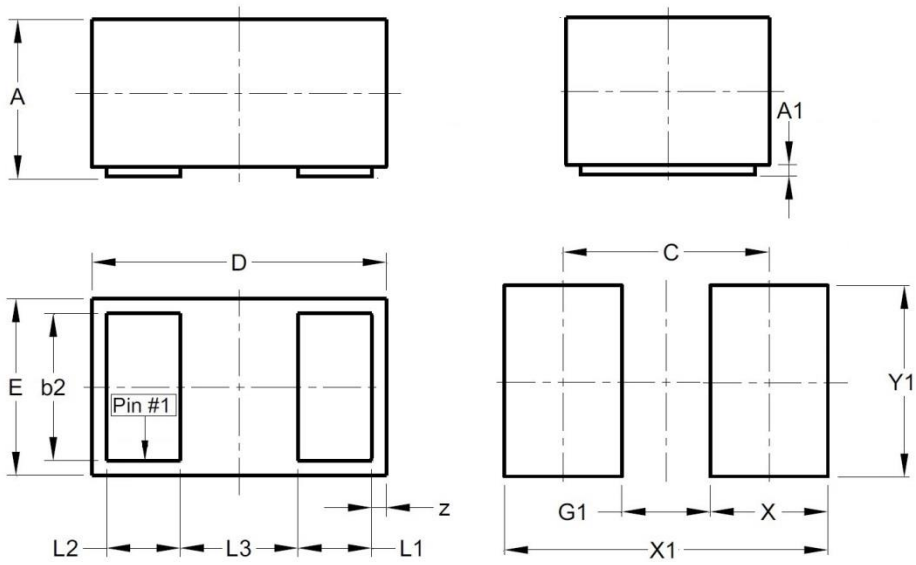
DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.32	0.55
A1	-	-
b2	0.45	0.55
D	0.95	1.05
E	0.55	0.65
z	0.05	0.05
L1	0.20	0.30
L2	0.20	0.30
L3	0.40	0.40
C	0.85	0.85
G1	0.30	0.30
X	0.55	0.55
X1	1.40	1.40
Y1	0.60	0.60



*Specifications subject to change without notice