

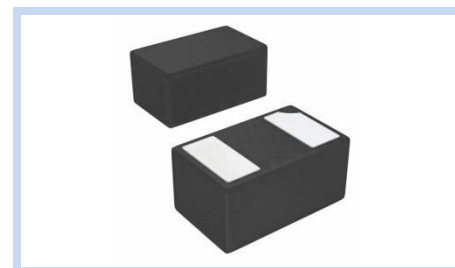
# ESD Suppressor 5V Bidirectional SOD-882

ME51B11S882

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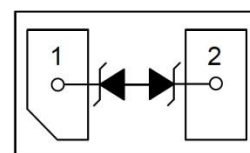
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 20\text{KV}$  (Air)  $\pm 20\text{KV}$  (Contact)
- ESD Protection for one Bidirectional Channel
- Low Leakage Current
- Low Clamping Voltage



## APPLICATION

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



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 20$	KV
ESD Voltage (Air discharge)		$\pm 20$	
Peak Pulse Current ( $t_p=8/20\mu s$ )	$I_{PP}$	2.5	A
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	$V_{RWM}$	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	$V_{BR}$	7	--	9.1	V
Reverse Leakage Current	$V_R=5\text{V}$	$I_R$	--	--	0.5	$\mu\text{A}$
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	$V_C$	--	11	--	V
	$I_{PP}=2\text{A}, t_p=8/20\mu s$		--	14	--	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	$C_J$	--	0.6	--	pF

Notes:  $T_J=25^{\circ}\text{C}$  unless otherwise specified

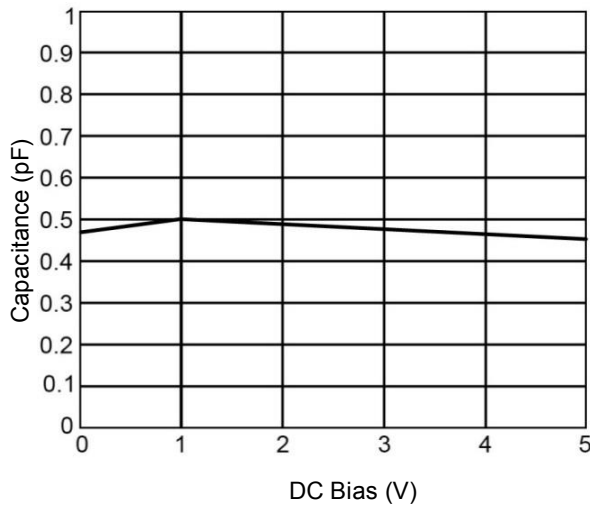
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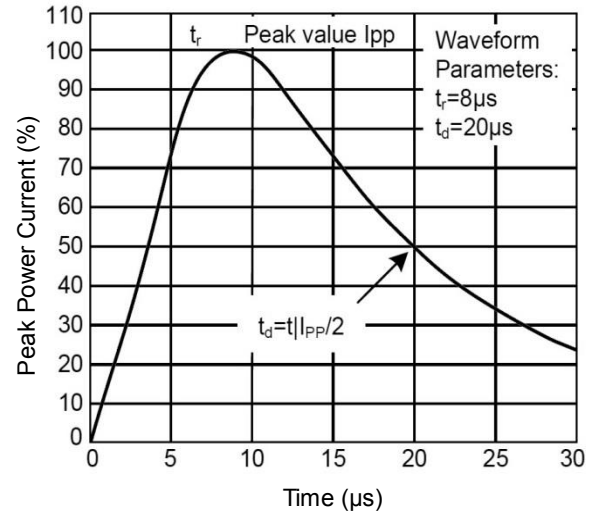
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## CHARACTERISTIC CURVES

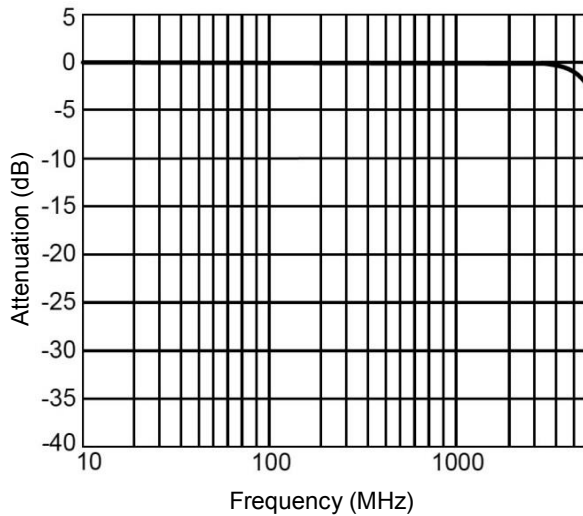
Capacitance vs. Bias Voltage



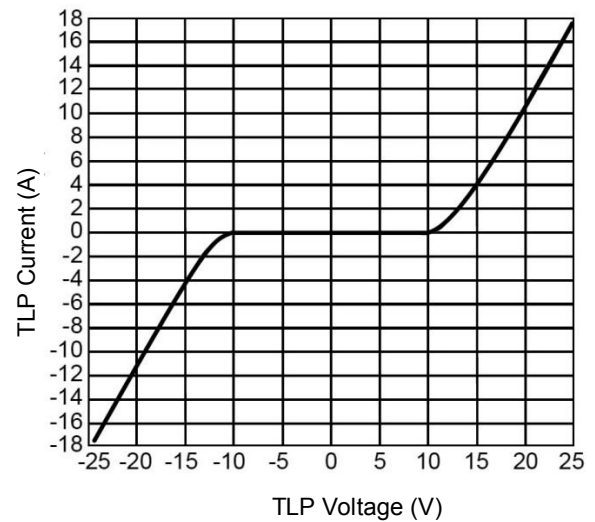
Pulse Waveforms



Insertion Loss (S21) I/O to GND



TLP Measurement



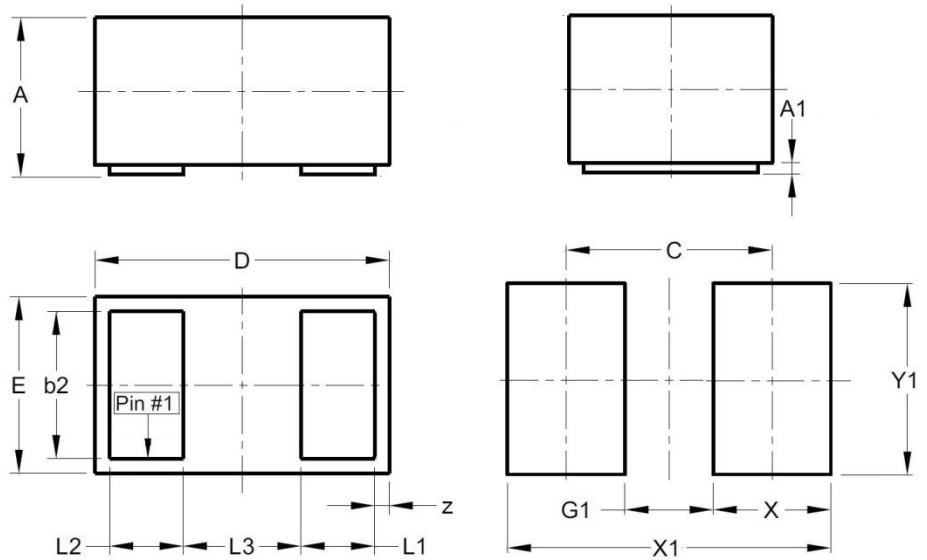
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

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