

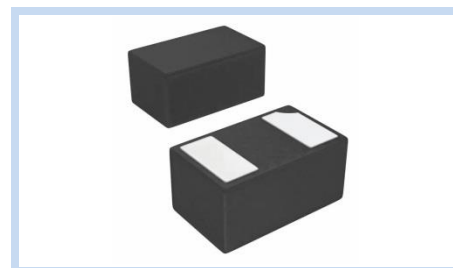
ESD Suppressor 18V Bidirectional SOD-882

ME181B30S882

MERITEK

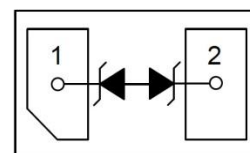
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for one Bidirectional Channel
- Low Leakage Current
- Low Clamping and Operating Voltages
- Solid-State Silicon-Avalanche Technology



APPLICATION

- RF Signal ESD Protection
- NFC Antenna Protection
- MP3/PMP
- Portable Medical
- Set Top Boxes



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Current ($t_p=8/20\mu\text{s}$)	I_{PP}	2	A
Operating & Storage Temperature Range	T_J, T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	18	V
Reverse Breakdown Voltage	$I_{\text{BR}}=1\text{mA}$	V_{BR}	19	--	--	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	1	μA
Clamping Voltage	$I_{\text{PP}}=1\text{A}, t_p=8/20\mu\text{s}$	V_C	--	--	30	V
	$I_{\text{PP}}=2\text{A}, t_p=8/20\mu\text{s}$		--	--	35	
Off State Junction Capacitance	$V_{\text{dc}}=0, f=1\text{MHz}$	C_J	--	0.4	0.6	pF

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

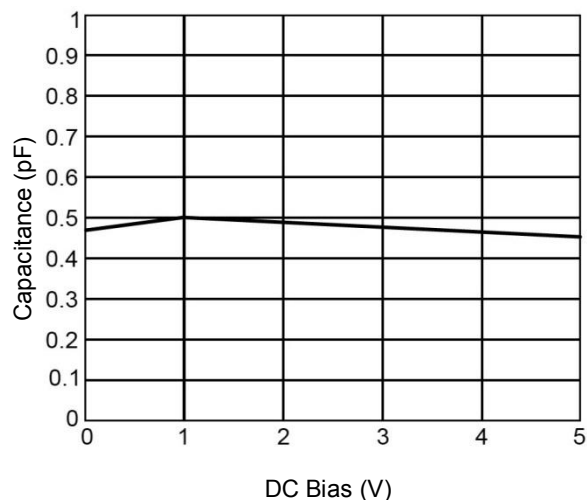
ESD Suppressor 18V Bidirectional SOD-882

ME181B30S882

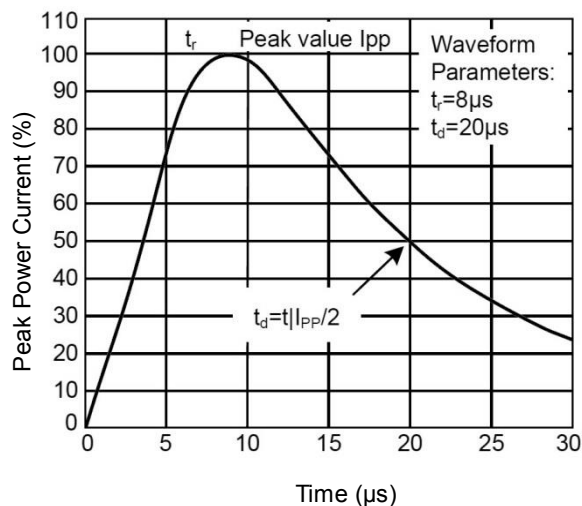
MERITEK

CHARACTERISTIC CURVES

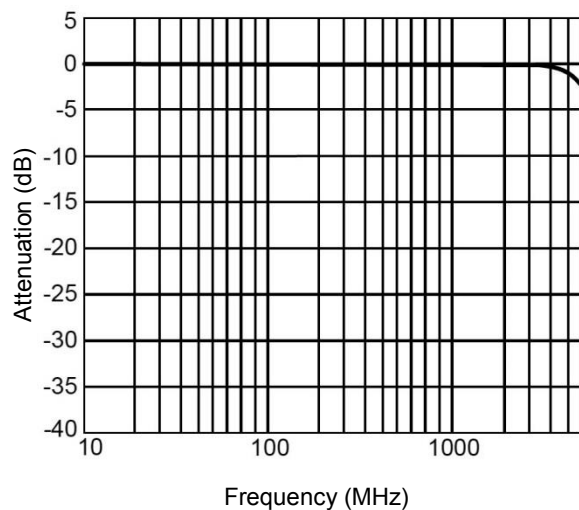
Capacitance vs. Bias Voltage



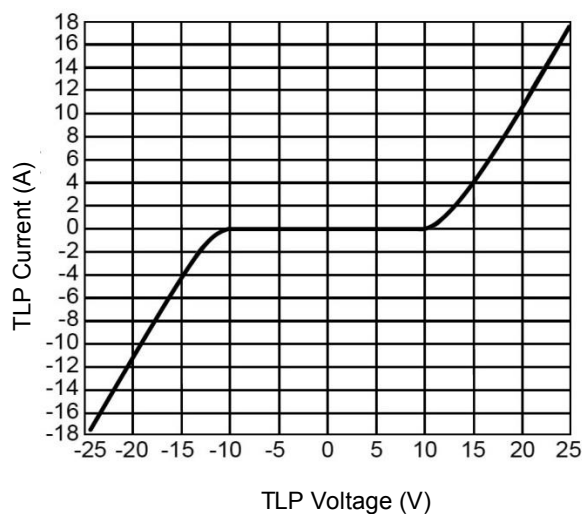
Pulse Waveforms



Insertion Loss (S21) I/O to GND



TLP Measurement



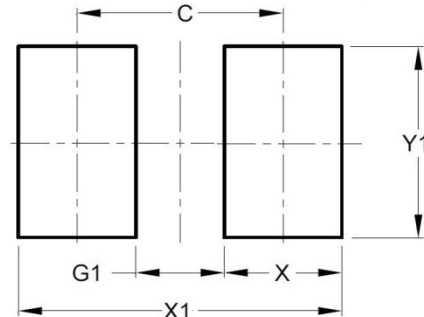
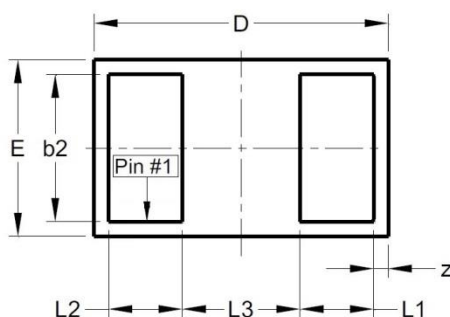
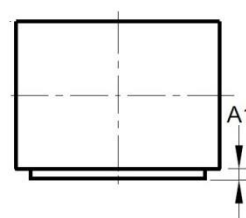
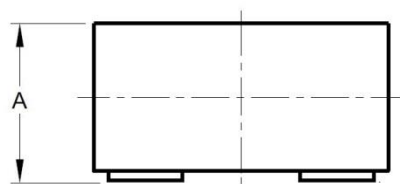
ESD Suppressor 18V Bidirectional SOD-882

ME181B30S882

MERITEK

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