

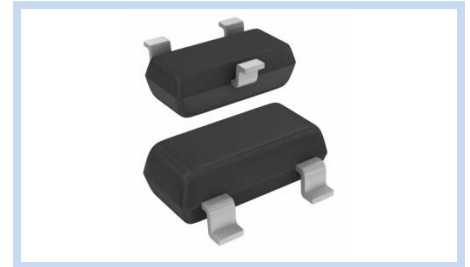
ESD Suppressor 24V 2-Bidirectional SOT-23

ME242B50S23

MERITEK

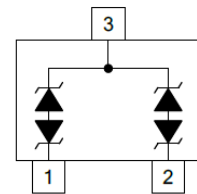
FEATURE

- IEC 61000-4-2 ESD: $\pm 20\text{KV}$ (Air) $\pm 20\text{KV}$ (Contact)
- ESD Protection for two Bidirectional Channels
- Low Capacitance
- Low Clamping Voltage



APPLICATION

- Lightning Control (DALI)
- Body Control Units
- Factory Automation
- Electronic Control Units
- PowerTrain Control Units



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 20	KV
ESD Voltage (Air discharge)		± 20	
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	4	A
Operating and 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}	--	--	24.00	V
Reverse Breakdown Voltage	$I_{BR}=5\text{mA}$	V_{BR}	25.40	--	30.30	V
Reverse Leakage Current	$V_R=24.00\text{V}$	I_R	--	--	50	nA
Clamping Voltage	$I_{PP}=4\text{A}, t_p=8/20\mu s$	V_C	--	--	50.00	V
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	C_J	--	11	--	pF

Notes:

1. $T_J=25^{\circ}\text{C}$ unless otherwise specified
2. Non-repetitive current pulse
3. Mounted on Copper Pads to each Terminal

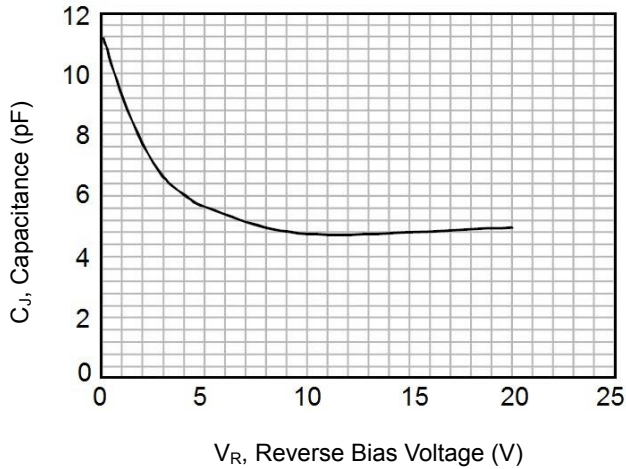
ESD Suppressor 24V 2-Bidirectional SOT-23

ME242B50S23

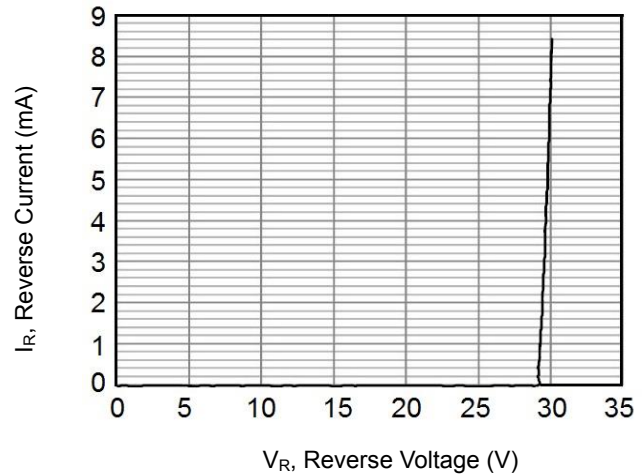
MERITEK

CHARACTERISTIC CURVES

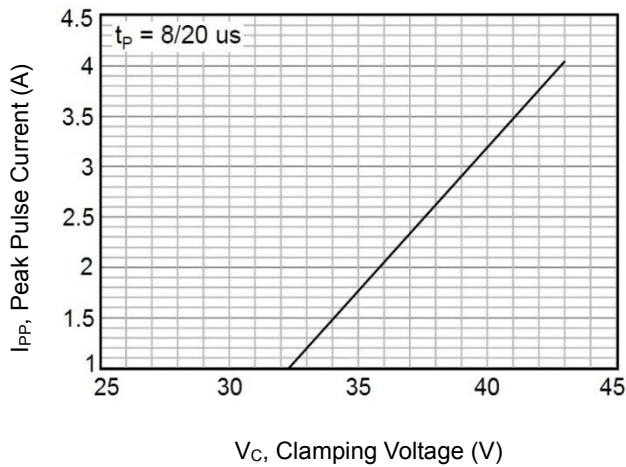
Typical Junction Capacitance



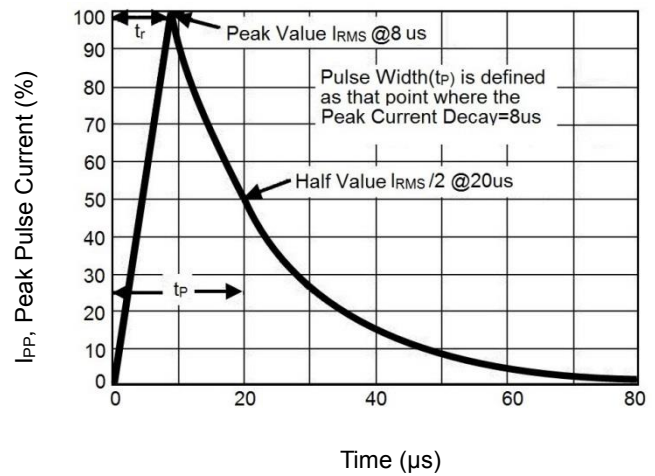
Typical Reverse Characteristics



Typical Peak Clamping Voltage



Pulse Waveform



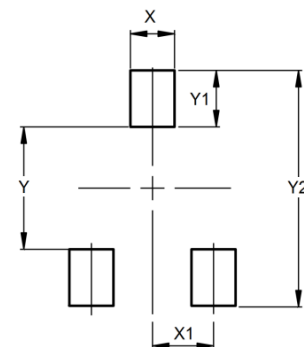
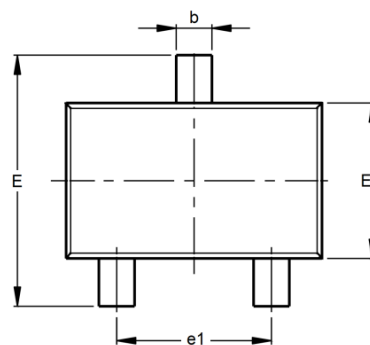
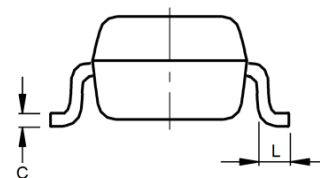
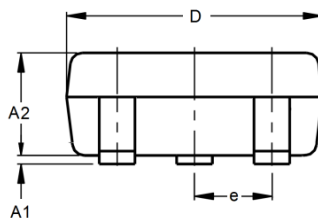
ESD Suppressor 24V 2-Bidirectional SOT-23

ME242B50S23

MERITEK

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.08	0.20
A2	0.82	0.90
b	0.35	0.50
C	0.00	0.10
D	2.80	3.04
e	--	--
e1	1.80	2.00
E	2.20	2.60
E1	1.20	1.40
L	0.15	--
X	0.80	0.80
X1	1.35	1.35
Y	2.90	2.90
Y1	0.90	0.90
Y2	2.00	2.00



*Specifications subject to change without notice.