

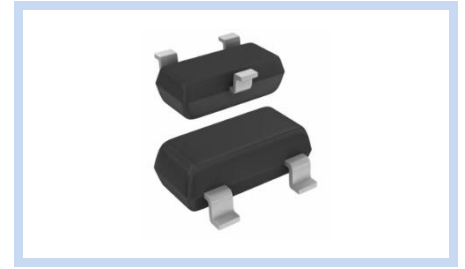
ESD Suppressor 12V/-7V 2-Bidirectional SOT-23

ME122B22S23

MERITEK

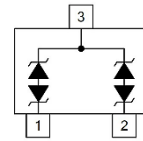
FEATURES

- IEC61000-4-2 ESD 15KV (Air), 8KV (Contact)
- Protects Bidirectional Two +12V To -7V Lines
- Low Leakage Current
- Low Clamping Voltages
- Application: Data Lines, Industrial Controls, RS-485, Security Systems, Automatic Teller Machines



MECHANICAL DATA

- Case: Molded Plastic, SOT-23 package
- Terminals: Solderable per MIL-STD-750, Method 2026



ABSOLUTE MAXIMUM RATINGS

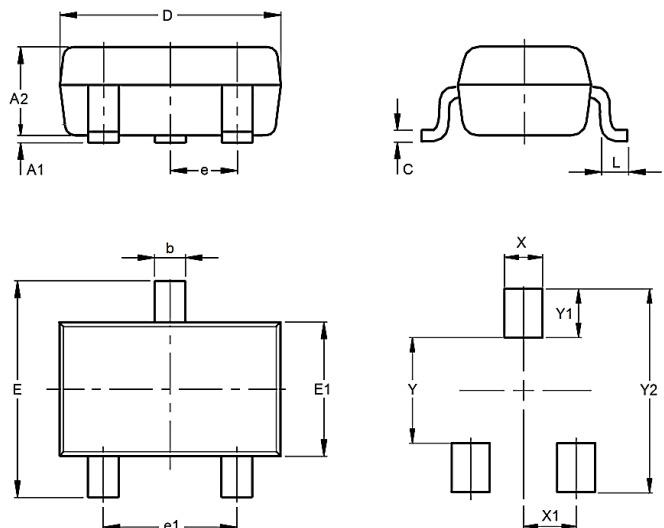
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu s$ waveform)	P_{PP}	264	W
Peak Pulse Current ($t_p = 8/20\mu s$ waveform)	I_{PP}	13	A
ESD Discharge (IEC61000-4-2)	Air	± 15	KV
	Contact	± 8	
Junction Temperature Range	T_J	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Symbol	Pin 1 to 3 and 2 to 3		Pin 3 to 1 and 3 to 2		Units
			Min	Max	Min	Max	
Reverse Stand-off Voltage	--	V_{RWM}	-	12	-	7	V
Reverse Breakdown Voltage	$I_T=1mA$	V_{BR}	13.3	-	7.5	-	V
Reverse Leakage Current	$V_R=V_{RRM}$	I_R	-	1.0	-	20	μA
Clamping Voltage ($t_p=8/20\mu s$)	$I_{PP}=5A, t_p=8/20\mu s$	V_C	-	20	-	10	V
Clamping Voltage ($t_p=8/20\mu s$)	$I_{PP}=12A, t_p=8/20\mu s$	V_C	-	22	-	12	V
Off State Junction Capacitance	$V_R=0, f=1MHz$	C_J	-	75	-	75	pF

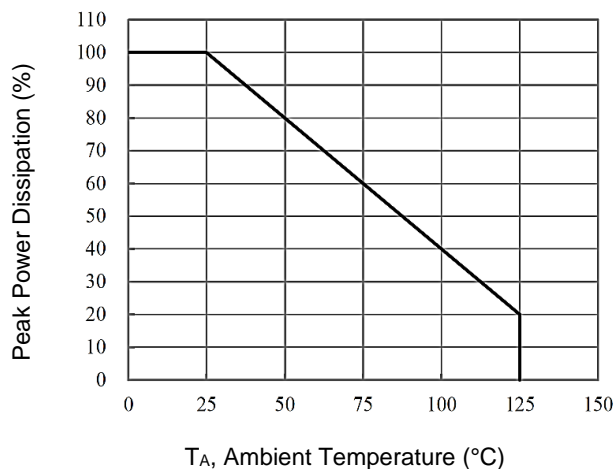
DIMENSIONS

SOT-23	Min (mm)	Max (mm)
A1	0.00	0.10
A2	0.79	1.40
b	0.30	0.50
c	0.08	0.20
D	2.70	3.10
e	0.89	1.02
e1	1.78	2.04
E	2.10	2.80
E1	1.20	1.60
L	0.15	--
X	0.80	
X1	0.95	
Y	1.22	
Y1	0.80	
Y2	2.82	

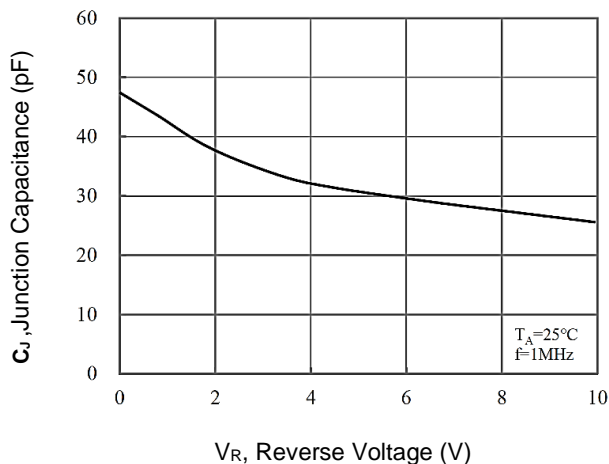


CHARACTERISTIC CURVES

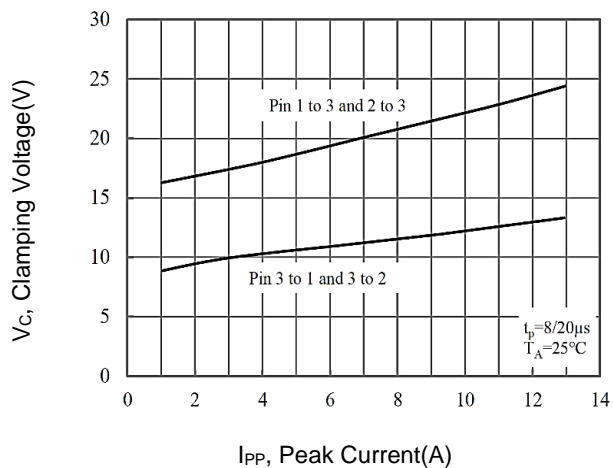
Power Derating Curve



Capacitance vs. Reverse Voltage



Typical Peak Clamping Voltage



TLP Curve

