

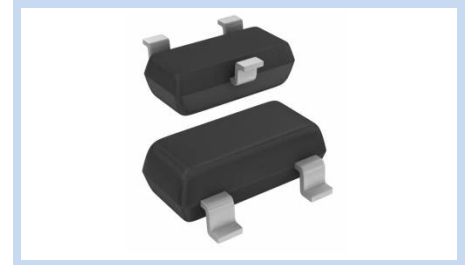
# ESD Suppressor 12V/7V 2-Bidirectional SOT-23

ME1272B1925S23

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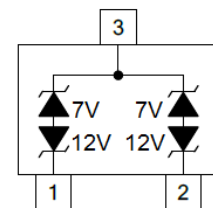
## FEATURE

- IEC 61000-4-2 ESD:  $\pm 30\text{KV}$  (Air)  $\pm 30\text{KV}$  (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- IEC 61000-4-5 Lightning: 5A (8/20 $\mu\text{s}$ )
- Low Clamping Voltage
- ESD Protection for two Bidirectional Channels



## APPLICATION

- Digital Cameras
- Audio and Video Equipment
- Control Signal Lines Protection
- Computers and Peripherals
- Communication Systems



## MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	$V_{ESD}$	$\pm 30$	KV
ESD Voltage (Air discharge)		$\pm 30$	
Operating and 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	pin 1 to pin 3 or pin 2 to pin 3	$V_{RWM}$	--	--	12.00	V
	pin 3 to pin 1 or pin 3 to pin 2		--	--	7.00	
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$ , pin 1 to pin 3 or pin 2 to pin 3	$V_{BR}$	13.30	--	--	V
	$I_{BR}=1\text{mA}$ , pin 3 to pin 1 or pin 3 to pin 2		7.50	--	--	
Reverse Leakage Current	$V_R=12.00\text{V}$ , pin 1 to pin 3 or pin 2 to pin 3	$I_R$	--	--	1.00	$\mu\text{A}$
	$V_R=7.00\text{V}$ , pin 3 to pin 1 or pin 3 to pin 2		--	--	1.00	
Clamping Voltage	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$ , pin 1 to pin 3 or pin 2 to pin 3	$V_C$	--	--	19.00	V
	$I_{PP}=5\text{A}$ , $t_p=8/20\mu\text{s}$ , pin 1 to pin 3 or pin 2 to pin 3		--	--	25.00	
	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$ , pin 3 to pin 1 or pin 3 to pin 2		--	--	12.00	
	$I_{PP}=8\text{A}$ , $t_p=8/20\mu\text{s}$ , pin 3 to pin 1 or pin 3 to pin 2		--	--	15.00	
Off State Junction Capacitance	$V_{dc}=0$ , Bias, $f=1\text{MHz}$	$C_J$	--	29	35	pF

Notes:

1.  $T_A=25^{\circ}\text{C}$  unless otherwise specified

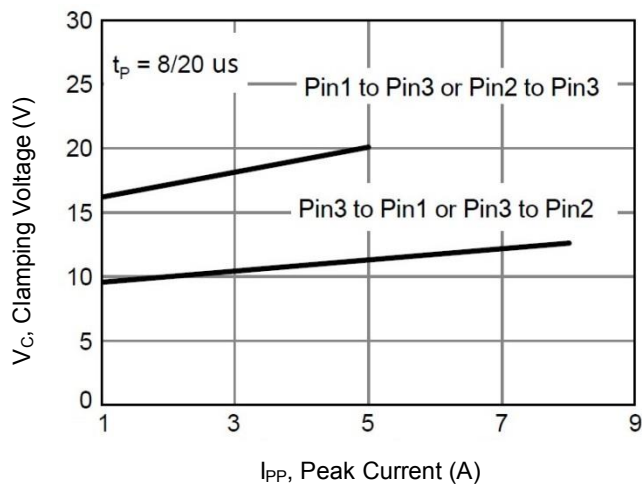
# ESD Suppressor 12V/7V 2-Bidirectional SOT-23

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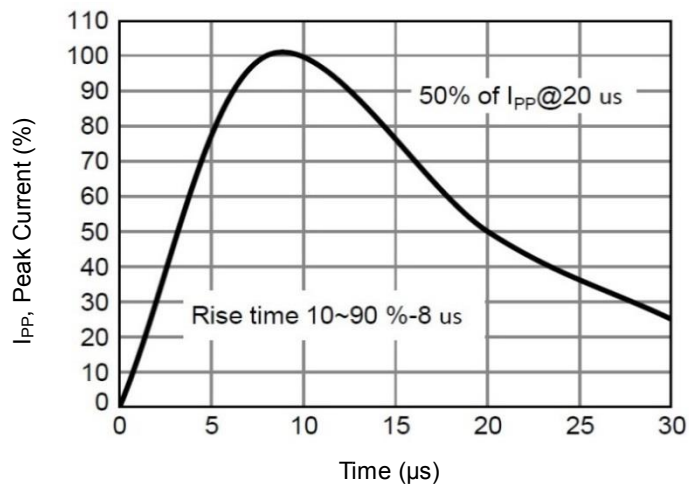
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## CHARACTERISTIC CURVES

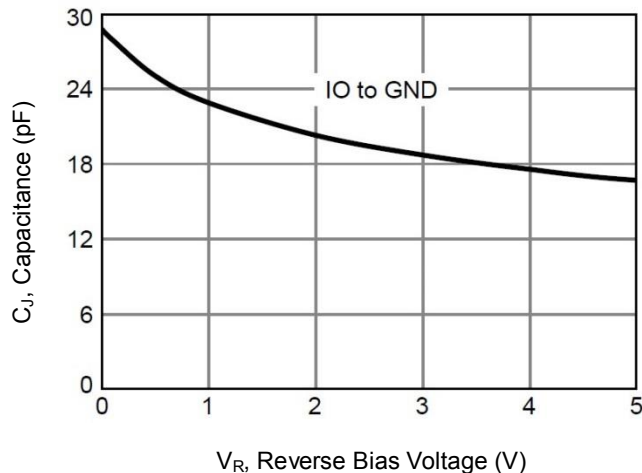
### Typical Peak Clamping Voltage



### Pulse Waveform



### Typical Junction Capacitance



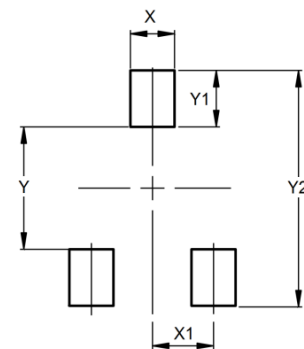
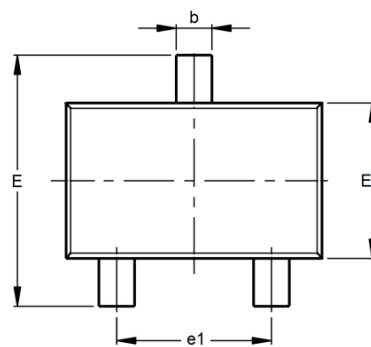
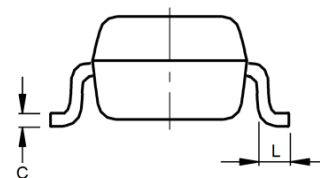
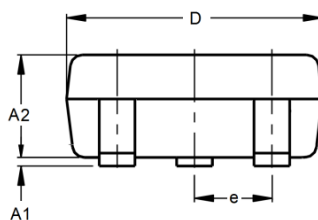
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## DIMENSIONS AND RECOMMENDED LAND PATTERN

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.