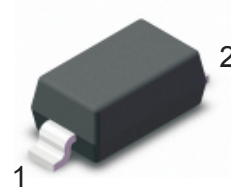


## Uni-direction ESD Protection Diode

### FEATURES

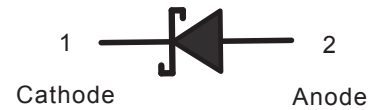
- Uni-directional ESD protection
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage
- Low leakage current
- Fast response time

### SOD-123



### MARKING: 5-

### CIRCUIT DIAGRAM



### MAXIMUM RATINGS ( Ta=25°C unless otherwise noted )

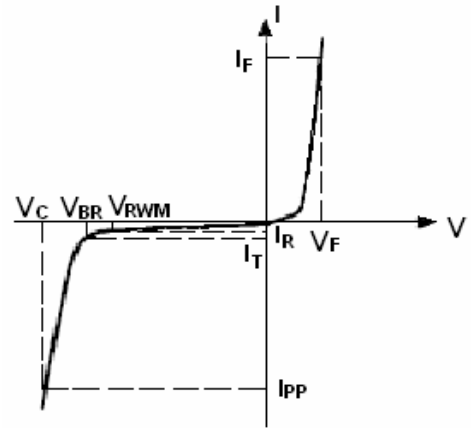
Parameter	Symbol	Limit	Unit
IEC 61000-4-2 ESD Voltage	Air Model	±25	kV
	Contact Model	±25	
JESD22-A114-B ESD Voltage	Per Human Body Model	±16	
ESD Voltage	Machine Model	±0.4	
Peak Pulse Power	$P_{PP}^{(2)}$	260	W
Peak Pulse Current	$I_{PP}^{(2)}$	13	A
Lead Solder Temperature – Maximum (10 Second Duration)	$T_L$	260	°C
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150	°C

(1).Device stressed with ten non-repetitive ESD pulses.

(2).Non-repetitive current pulse 8/20µs exponential decay waveform according to IEC61000-4-5.

## ELECTRICAL PARAMETER

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



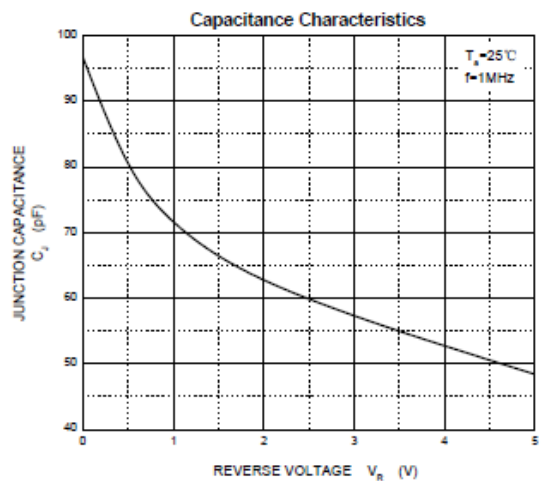
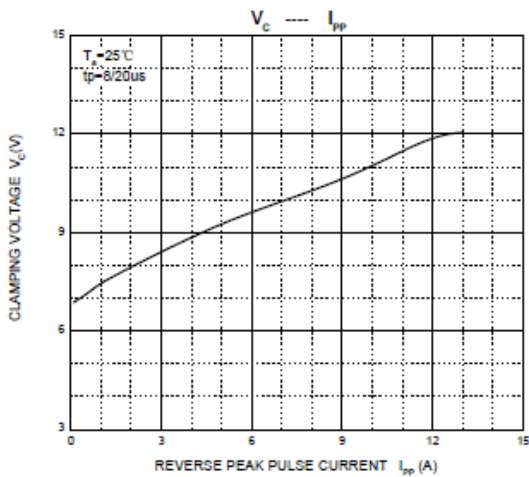
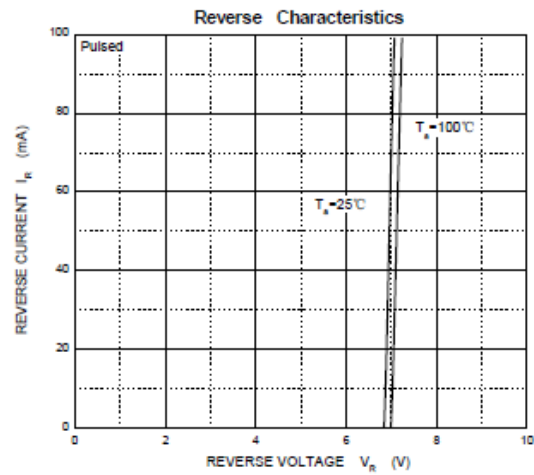
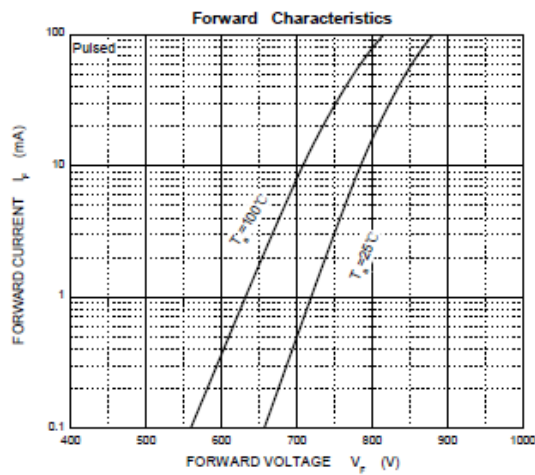
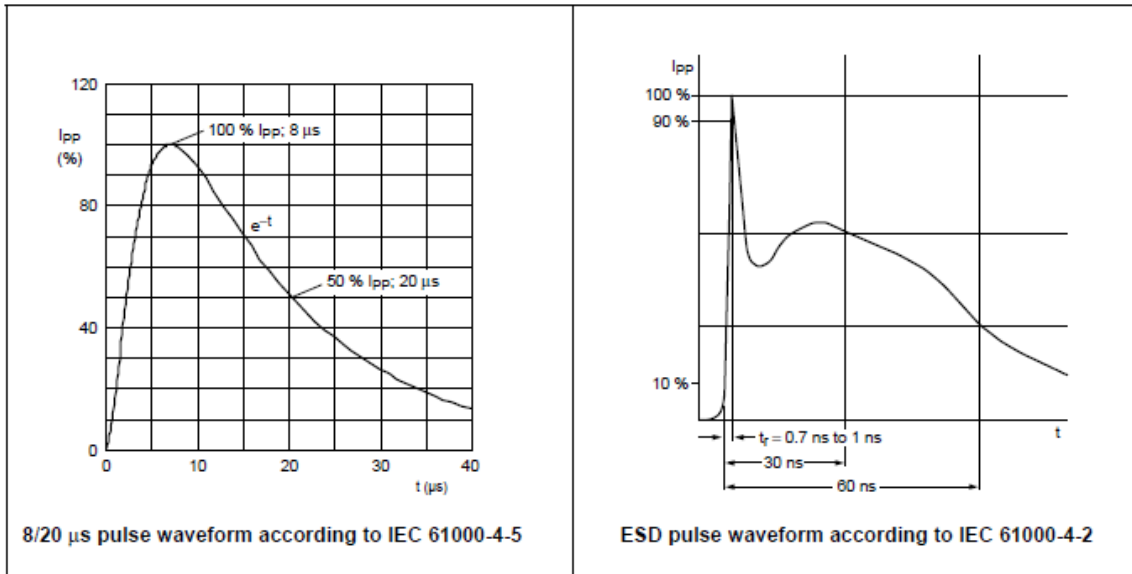
## ELECTRICAL CHARACTERISTICS(Ta=25°C V<sub>F</sub> = 1.1 V Max. at I<sub>F</sub> = 10 mA)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand off voltage	$V_{RWM}^{(1)}$				5.0	V
Reverse leakage current	$I_R$	$V_{RWM}=5.0V$			1.0	$\mu A$
Breakdown voltage	$V_{(BR)}$	$I_T=1mA$	6.2		7.3	V
Clamping voltage	$V_C^{(2)}$	$I_{PP}=13A$			13	V
Junction capacitance	$C_J$	$V_R=0V, f=1MHz$		95		pF

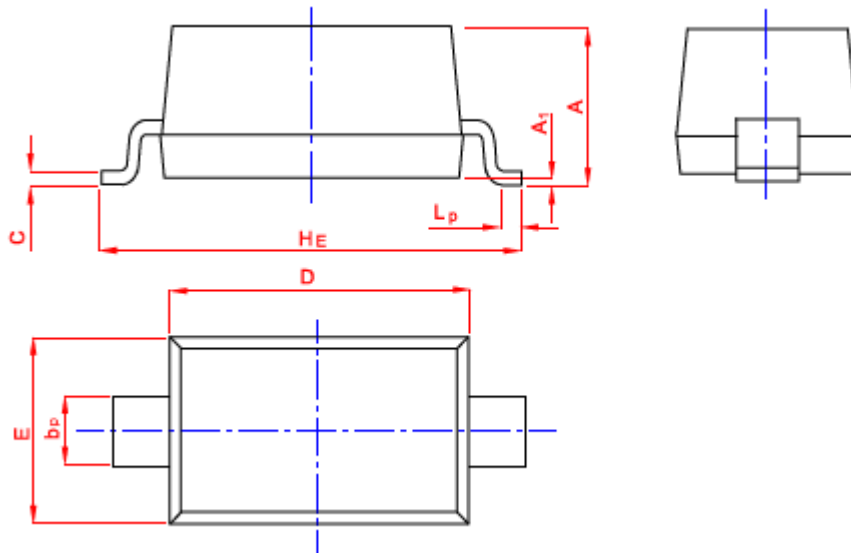
(1).Other voltages available upon request.

(2).Non-repetitive current pulse 8/20 $\mu s$  exponential decay waveform according to IEC61000-4-5

## TYPICAL CHARACTERISTICS



## SOD-123 PACKAGE OUTLINE DRAWING



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.20	0.035	0.047
b <sub>p</sub>	0.50	0.60	0.020	0.024
C	0.100	0.135	0.004	0.005
D	2.55	2.75	0.100	0.108
E	1.55	1.65	0.061	0.065
H <sub>E</sub>	3.55	3.85	0.140	0.152
A <sub>1</sub>	0.01	0.10	0.0004	0.004
L <sub>p</sub>	0.20	0.50	0.008	0.020