

## Transient Voltage Suppressors

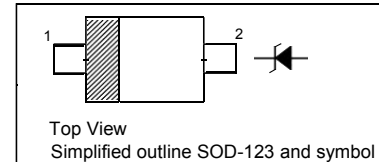
for ESD Protection

### Features

- Low clamping voltage
- Low leakage

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



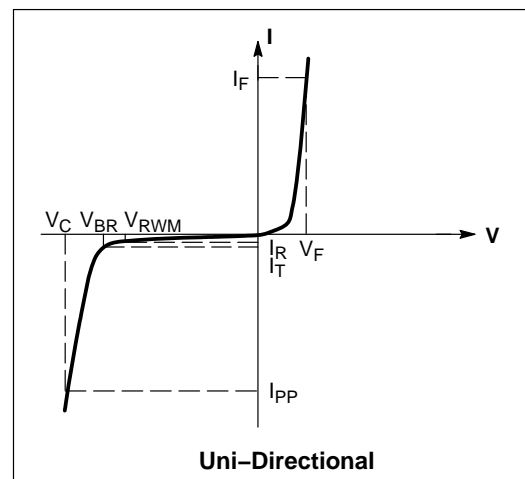
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{pk}$	350	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{pp}$	24	A
ESD Voltage (HRB Waveform per IEC61000-4-2)	$V_{pp}$	30	KV
Operating Junction Temperature	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

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 @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$
$P_{pk}$	Peak Power Dissipation
C	Max. Capacitance @ $V_R = 0$ and $f = 1 \text{ MHz}$



\*See Application Note AND8308/D for detailed explanations of datasheet parameters.

**Characteristics at  $T_a = 25\text{ }^\circ\text{C}$  ( $V_F = 0.9\text{ V Max.}$  at  $I_F = 10\text{ mA}$ )**

Type	Marking Code	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage		Clamping Voltage <sup>1)</sup>				Capacitance	
		$V_{RWM}$	$I_R$ at $V_{RWM}$	$V_{BR}$	at $I_R$	$V_C$	at $I_{PP}$	$V_C$	at $I_{PP}$	$C_j$	at f
		Max. (V)	Max. ( $\mu\text{A}$ )	Min. (V)	mA	Typ. (V)	A	Max. (V)	A	Max. (pF)	MHz
ESD1Z2V5	02	2.5	5	4	1	6.5	5	10.9	11	145	1
ESD1Z3V3	03	3.3	10	5	1	8.4	5	14.1	16	105	1
ESD1Z5V0	05	5	10	6	1	9.8	5	14.5	24	350	1
ESD1Z6V0	06	6	5	6.8	1	12.4	5	20.5	8.8	70	1
ESD1Z7V0	07	7	1	7.5	1	13.5	5	22.7	8.8	65	1
ESD1Z12	12	12	1	13.3	1	19	5	25	7	150	1
ESD1Z18	18	18	1	19.8	1	26.5	5	40	5	100	1
ESD1Z24	24	24	1	25.5	1	29	4	52	5	150	1
ESD1Z36	36	36	1	40	1	/	3	80	3	100	1

<sup>1)</sup>  $t_p = 8/20\text{ }\mu\text{s}$

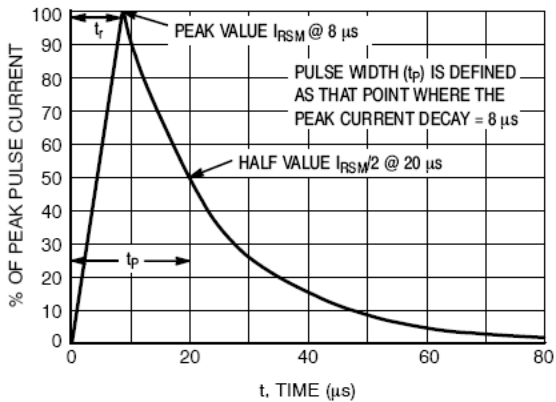
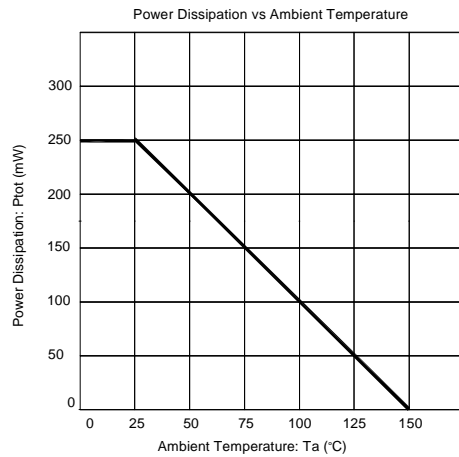


Figure 1. 8 x 20  $\mu\text{s}$  Pulse Waveform

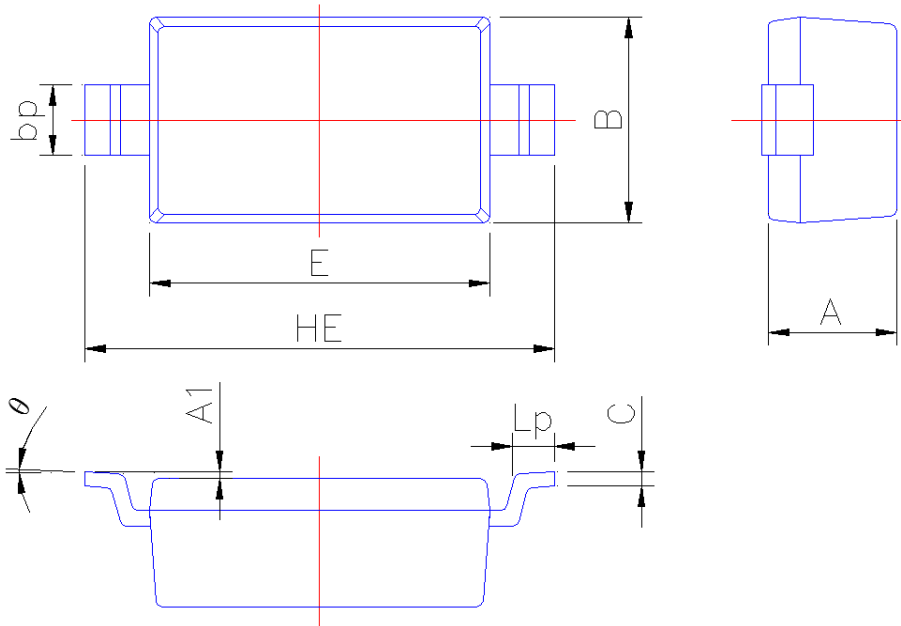




## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.15
A1	0.01	0.100
B	1.55	1.65
bp	0.50	0.70
C	0.09	0.150
E	2.60	2.70
HE	3.45	3.85
Lp	0.20	0.45
$\theta$	0°	5°