

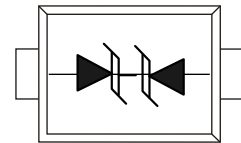
**Transient Voltage Suppressors for ESD Protection**
**Applications**

- ◆ Cellular phones
- ◆ Portable devices
- ◆ Digital cameras
- ◆ Power supplies

**Features**

- ◆ Small Body Outline Dimensions
- ◆ Low Body Height
- ◆ Peak Power up to 150 Watts @ 8 x 20  $\mu$ s Pulse
- ◆ Low Leakage current
- ◆ Response Time is Typically < 1 ns
- ◆ ESD Rating of Class 3 (> 16 kV) per Human Body Model
- ◆ IEC61000-4-2 Level 4 ESD Protection
- ◆ IEC61000-4-4 Level 4 EFT Protection

**SOD-323**

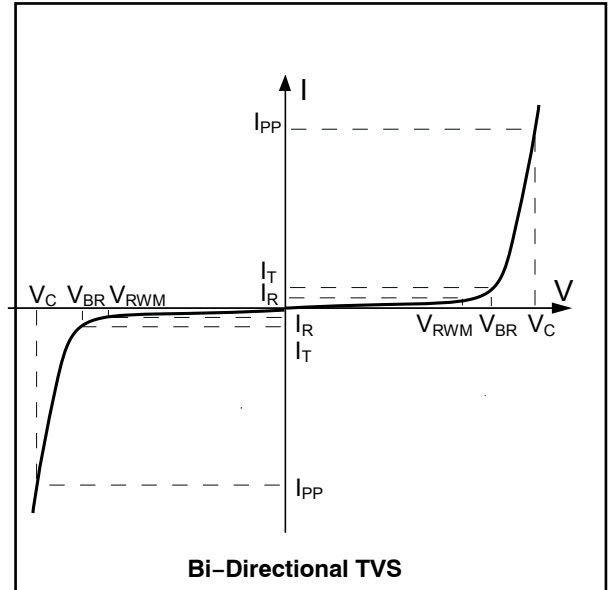
**PIN CONFIGURATION**


MAXIMUM RATINGS(Ta = 25°C)			
Rating	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20s)	Ppp	150	W
Lead Solder Temperature – Maximum (10 Second Duration)	T <sub>L</sub>	260	°C
Storage Temperature Range	T <sub>op</sub>	-55 to +155	°C
Operating Temperature Range	T <sub>j</sub>	-40 to +125	°C
Maximum Junction Temperature	T <sub>J</sub>	150	°C
IEC61000-4-2 (ESD)	air discharge	±15	KV
	contact discharge	±8	
IEC61000-4-4 (EFT)		40	A
ESD Voltage	Per Human Body Model	16	KV

**ELECTRICAL CHARACTERISTICS**

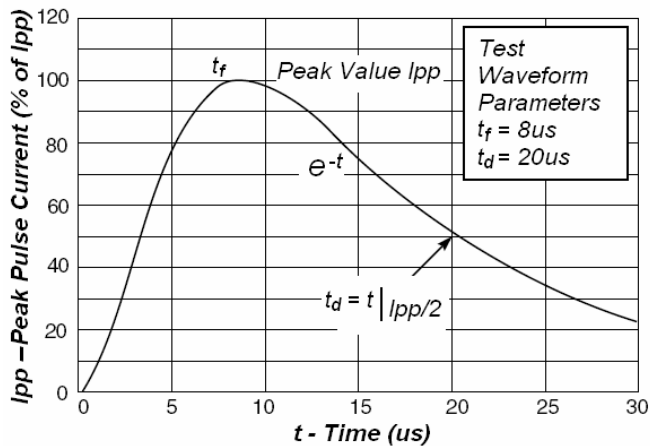
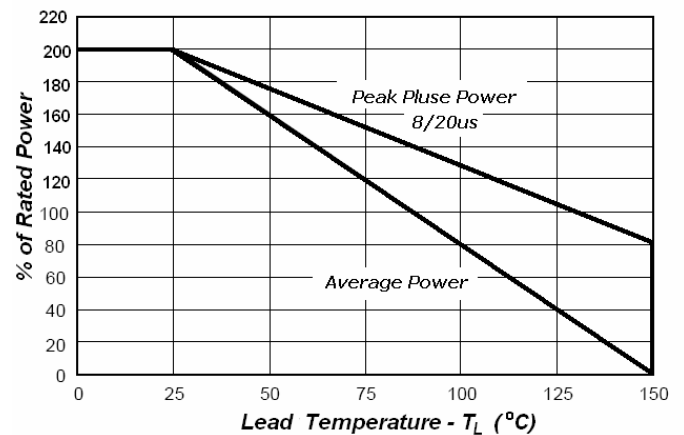
 (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter
V <sub>RWM</sub>	Peak Reverse Working Voltage
I <sub>R</sub>	Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
P <sub>PP</sub>	Peak Pulse Power
C <sub>J</sub>	Junction Capacitance
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>

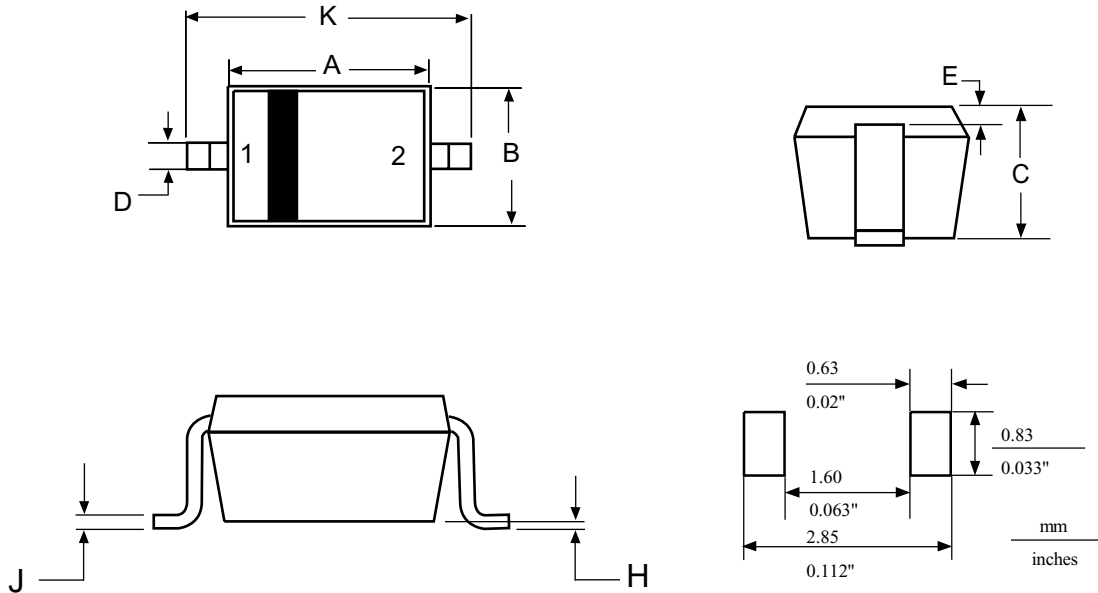

 Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified. V<sub>F</sub> = 0.9V at I<sub>F</sub> = 10mA

Device	V <sub>RWM</sub> (V) (max.)	I <sub>R1</sub> (uA) @ V <sub>RWM</sub> (max.)	V <sub>BR</sub> (V)@ I <sub>T</sub> (Note 1) (min.)	I <sub>T</sub> mA	V <sub>C</sub> (V) @ IPP=5A (Typ)	V <sub>C</sub> (V) @ MAX IPP (max.)	IPP (A)* (max.)	P <sub>PK</sub> (W) Max	C (pF) (Typ)
SES5V6D323-2B	5.6	1.0	6.0	1.0	11.6	16.6	9.4	150	11

\*Surge current waveform per Figure 1.

 1. V<sub>BR</sub> is measured with a pulse test current I<sub>T</sub> at an ambient temperature of 25°C.

**Fig1. Pulse Waveform**

**Fig2. Power Derating Curve**

SOD-323



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.70	0.091	0.106

PIN: 1. CATHODE  
2. ANODE