

**Dual Transient Voltage Suppressors Array for ESD Protection**

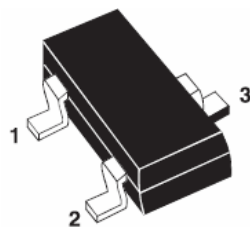
**General Description**

The SESOTA03C is a dual monolithic voltage suppressor designed to protect components which are connected to data and transmission lines against ESD. It clamps the voltage just above the logic level supply for positive transients and to a diode drop below ground for negative transients. It can also work as bidirectional suppressor by connecting only pin1 and 2.

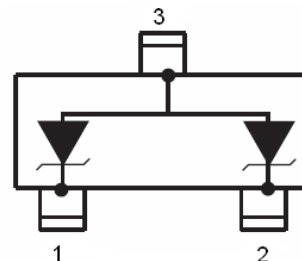
**Applications**

- Computers
- Printers
- Communication systems

**Functional diagram**



**SOT-23**



**Features**

- 2 Unidirectional Transil functions
- Low leakage current:  $I_R \max < 20 \mu A$  at  $V_{RM}$
- 150W peak pulse power(8/20 $\mu s$ )
- Transient protection for data lines as per
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"

**Complies with the following standards**

**IEC61000-4-2**

**Level 4 15 kV (air discharge)**

**8 kV(contact discharge)**

**MIL STD 883E - Method 3015-7 Class 3**

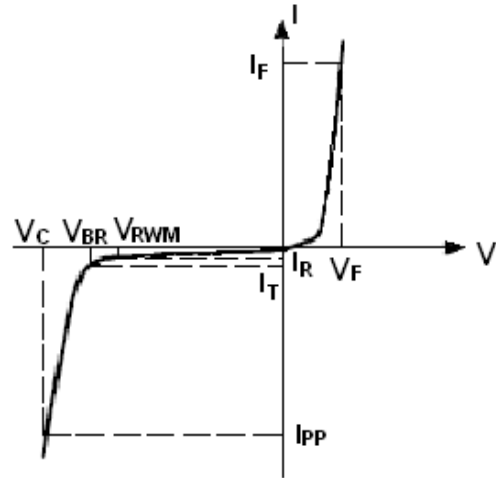
**25 kV HBM (Human Body Model)**

<b>Absolute Ratings (<math>T_{amb}=25^{\circ}C</math>)</b>			
<b>Symbol</b>	<b>Parameter</b>	<b>Value</b>	<b>Units</b>
$P_{PP}$	Peak Pulse Power ( $t_p = 8/20\mu s$ )	150	W
$T_L$	Maximum lead temperature for soldering during 10s	260	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55 to +155	$^{\circ}C$
$T_{op}$	Operating Temperature Range	-40 to +125	$^{\circ}C$
$T_j$	Maximum junction temperature	150	$^{\circ}C$
$V_{PP}$	Electrostatic discharge		
	IEC61000-4-2 air discharge	15	kV
	IEC61000-4-2 contact discharge	8	



#### 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 @ $I_T$



#### Electrical Characteristics

Part Numbers	$V_{BR}$			$I_T$	$V_{RWM}$	$I_R$	<b>C</b>
	Min.	Typ.	Max.				Typ. 0v bias
	V	V	V				pF
SESOTA03C	5.2	5.6	6.0	5	3.3	1	200

1).8/20 waveform used. (see fig2.)

#### Typical Characteristics

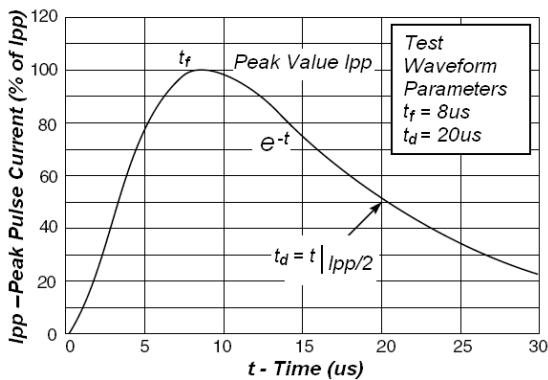


Fig2. Pulse Waveform

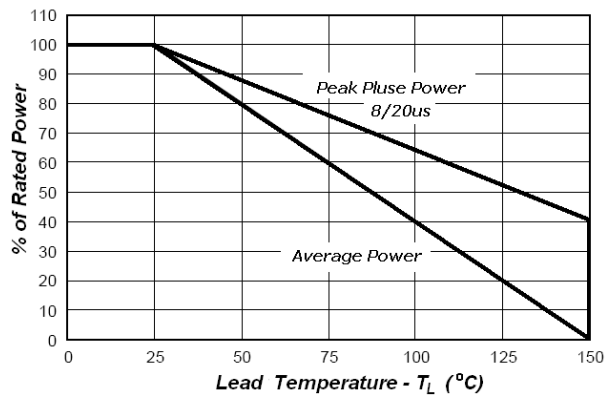


Fig3. Power Derating Curve



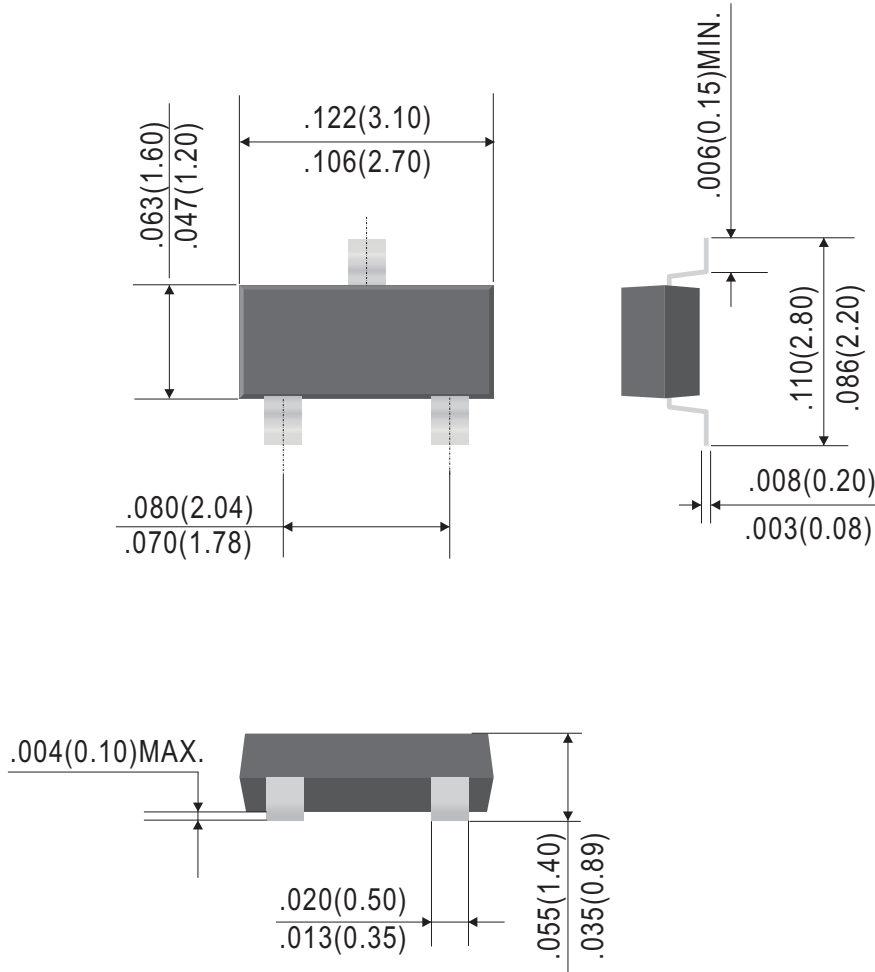
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## SESOTA03C

### Dual Transient Voltage Suppressors Array for ESD Protection

#### SOT-23 mechanical data



Dimensions in inches and (millimeters)

#### Marking

Type number	Marking code
SESOTA03C	A3