Elektronische Bauelemente

SESD07

110 W, 7.0 V
Transient Voltage Suppressors
for ESD Protection (Uni-directional)

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

TheSESD07 is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. Small size makes it easy to fit in limited board spaces.

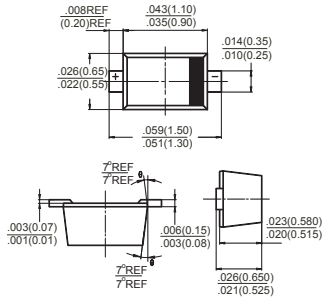
APPLICATIONS

- Cellular phones / audio
- Portable devices
- Digital cameras
- MP3 players

FEATURES

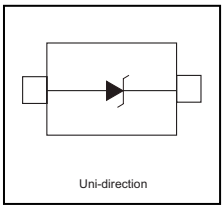
- Stand−off Voltage: 7.0 V
- Low Leakage
- Response Time is typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000−4−2 Level 4 ESD Protection
- These are Pb−Free Devices

SOD-723



Dimensions in inches and (millimeters)

- The marking band indicates cathode.



MARKING CODE

EE

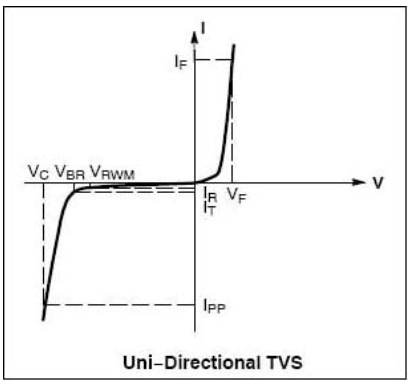
ABSOLUTE RATINGS (Tamb = 25°C)

Rating		Symbol	Value	Units
IEC 61000-4-2 (ESD)	Air contact		±30	kV
	Contact discharge		±30	kV
ESD voltage	per human body model		16	kV
	per machine model		400	V
Total power dissipation on FR-5 Board (Note 1)		P_D	100	mW
Thermal Resistance Junction−to−Ambient		$R_{\theta JA}$	1250	°C / W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 ~ +150	°C
Lead Solder Temperature – Maximum (10 Second Duration)		T_L	260	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.
1. FR-5 = 1.0 x 0.75 x 0.62 in.

ELECTRICAL CHARACTERISTICS (Ratings at 25°C ambient temperature unless otherwise specified.)

Symbol	Parameter
I_{PP}	Max. Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Max. 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
C	Max. Capacitance @ V_R=0 and f=1 MHz



Uni−Directional TVS

ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified. V_F = 0.9V max at I_F = 10mA for all types)

Device	V_{RWM} (V)	I_R (uA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)		I_T	V_C (V) @ Max I_{PP}*	I_{PP}(A)*	C (pF)
	Max	Max	Min	Max	mA	Max	Max	Typ
SESD07	7.0	1.0	7.5	8.7	1.0	14.1	8.1	55

+Surge current waveform per Figure 1.

1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25℃.

RATINGS AND CHARACTERISTICS CURVES

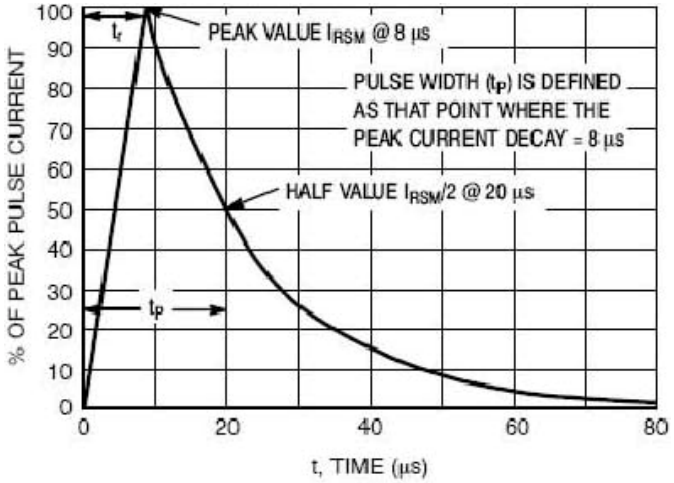


Figure 1. 8 x 20 μs Pulse Waveform

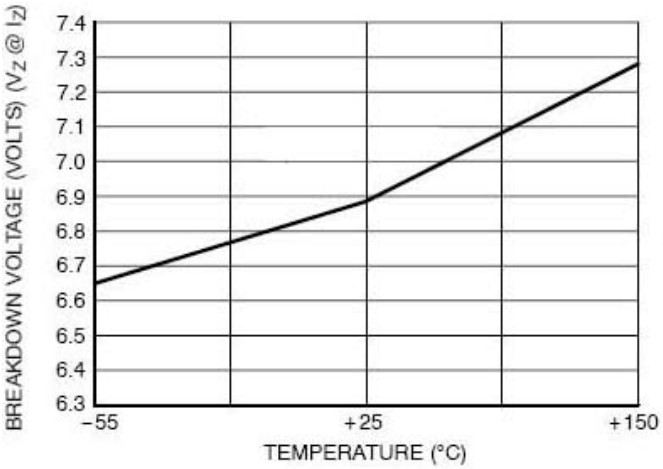


Figure 2. Typical Breakdown Voltage versus Temperature

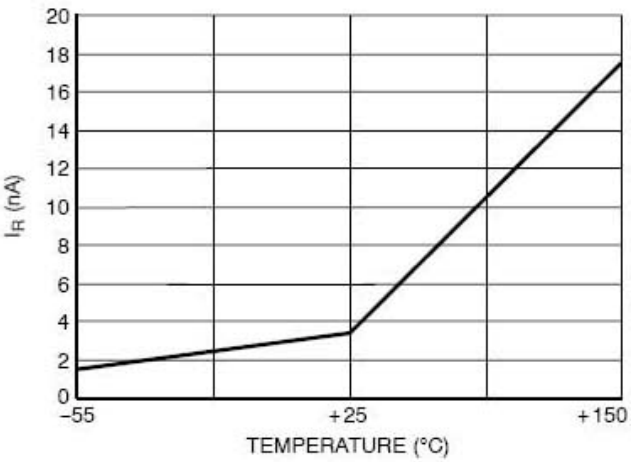


Figure 3. Typical Leakage Current versus Temperature