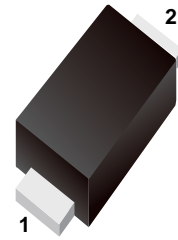


■ Transient Voltage Suppressors for ESD Protection

■ Features

- Stand-off Voltage: 5V0
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection



■ Simplified outline(SOD-523)



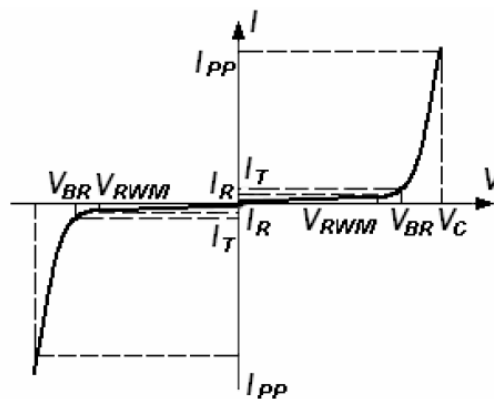
■ Absolute Maximum Ratings $T_A = 25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{pp}	IEC61000-4-2(ESD) Air Contact	± 15 ± 8	KV
ESD	Per Human Body Model	16	KV
P_D	Power Dissipation (Note 1)	150	mW
T_{stg}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
T_J	Operating Junction Temperature	+150	$^{\circ}\text{C}$
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	$^{\circ}\text{C}$

These ratings are limiting values above which the serviceability of the diode may be impaired.
Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

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

Device Type	V_{RWM} (Volts)	$I_R @ V_{RWN}$ (μA)	$V_{BR} @ I_T$ (Note 2) (Volts)		I_T (mA)	I_{PP+} (A)	$V_C @ \text{Max } I_{PP+}$ (Volts)	P_{PK+} (W)	C @ $V_R = 0V, f = 1\text{MHz}$ (pF)
	Max	Max	Min	Max		Max	Max	Max	Typ.
ESD5Z5.0C	5.0	1	5.6	7.8	1.0	4	12	48	15

+ Surge current waveform per Figure 1.

Note 2: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

■ **SURGE CURRENT WAVEFORM:**

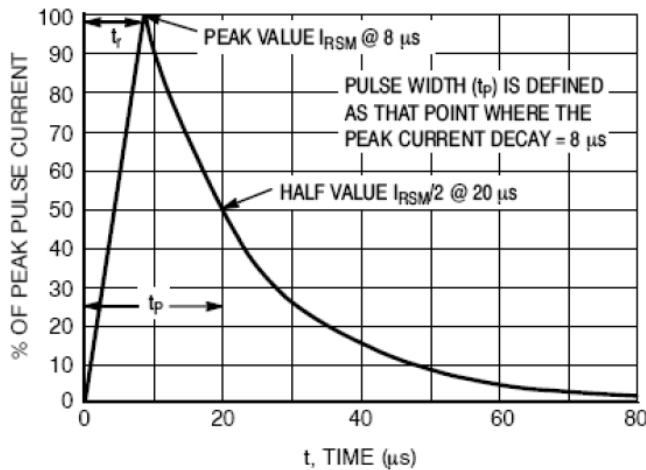
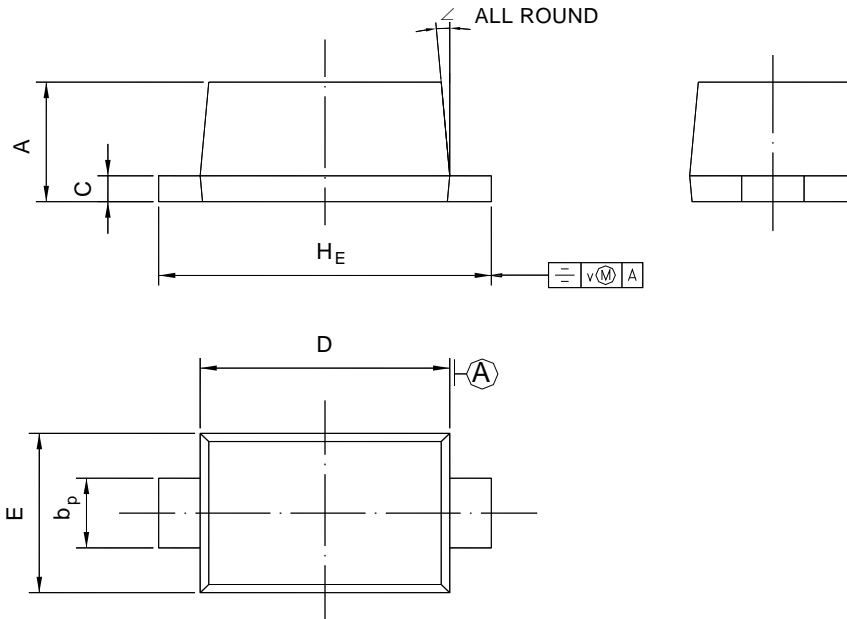


Figure 1. 8 x 20 μs Pulse Waveform

Package Outline SOD-523

Plastic surface mounted package; 2 leads



UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-523	Tape/Reel, 7" reel	3000	EIA-481-1