

■ Surface Mount Transient Voltage Suppressor

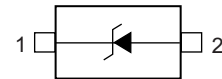
■ Features

- Peak Power up to 200 Watts @ 8 x 20 μ s Pulse
- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model



1.Cathode
2.Anode

■ Simplified outline(SOD-523)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
ESD Voltage	Per Human Body Model	16	KV
	Per Machine Model	400	V
Electrostatic discharge	IEC61000-4-2 Air discharge	30	KV
	IEC61000-4-2 ContactAir discharge	30	
Electrostatic discharge	IEC61000-4-4	40	A
Total Power Dissipation on FR-5 Board*1, @ TA = 25°C	P _D	100	mW
Junction Temperature Range	T _L	260(10s)	°C
Lead Solder Temperature -Maximum	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

*1 FR-5 = 1.0 X 0.75 X 0.62 in.

■ Electrical Characteristics (Ta = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Device	V _{RWM} (V)	I _R (μ A) @ V _{RWM}	V _{BR} (V)@ I _T *2	I _T	V _C (V)*1 @I _{PP} =5.0A	V _C (V)*1 @Max I _{PP}	I _{PP} (A) *1	P _{PK} (W)*1	C(pF)
	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
ESD5Z2.5	2.5	6.0	4.0	1.0	6.5	10.9	11.0	120	145
ESD5Z3.3	3.3	0.05	5.0	1.0	8.4	14.1	11.2	158	105
ESD5Z5.0	5.0	0.05	6.2	1.0	11.6	18.6	9.4	174	80
ESD5Z6.0	6.0	0.01	6.8	1.0	12.4	20.5	8.8	181	70
ESD5Z7.0	7.0	0.01	7.5	1.0	13.5	22.7	8.8	200	65

* 1. Surge current waveform per Fig.1

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

■ Marking

TYPE	ESD5Z2.5	ESD5Z3.3	ESD5Z5.0	ESD5Z6.0	ESD5Z7.0
Marking	ZD	ZE	ZF	ZG	ZH

■ Typical Characteristics

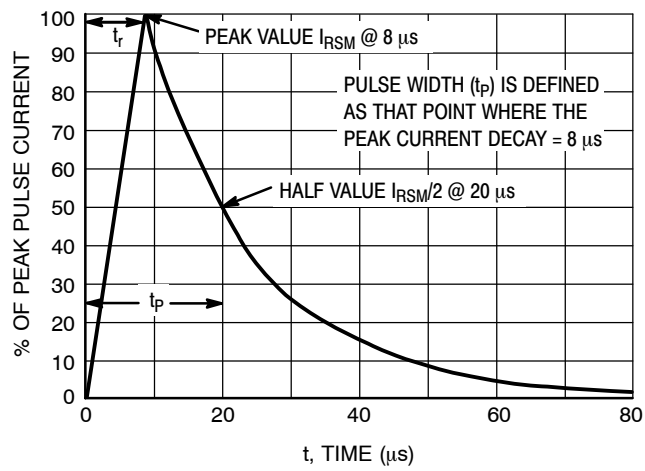
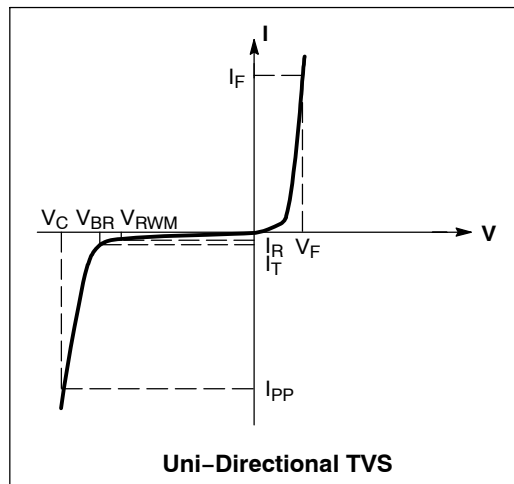
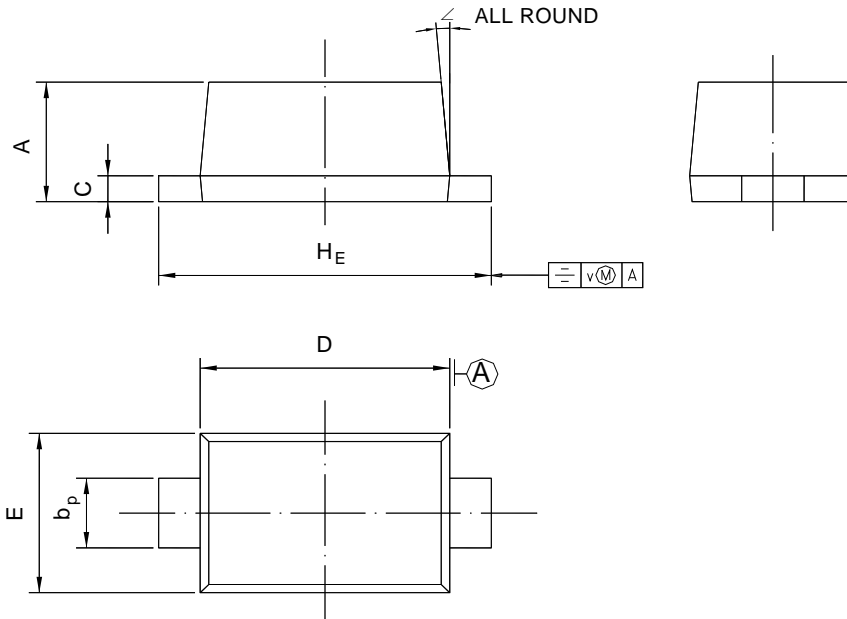


Figure 1. 8 x 20 μs Pulse Waveform

Package Outline SOD-523

Plastic surface mounted package; 2 leads



UNIT	A	b_p	C	D	E	H_E	V	\angle
mm	0.70	0.4	0.135	1.25	0.85	1.7	0.1	5°
	0.60	0.3	0.100	1.15	0.75	1.5		

Summary of Packing Options

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