

Surface Mount Transient Voltage Suppressor

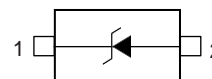
Features:

- 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
KWESD5Z2.5	2.5	6.0	4.0	1.0	6.5	10.9	11.0	120	145
KWESD5Z3.3	3.3	0.05	5.0	1.0	8.4	14.1	11.2	158	105
KWESD5Z5.0	5.0	0.05	6.2	1.0	11.6	18.6	9.4	174	80
KWESD5Z6.0	6.0	0.01	6.8	1.0	12.4	20.5	8.8	181	70
KWESD5Z7.0	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	KWESD5Z2.5	KWESD5Z3.3	KWESD5Z5.0	KWESD5Z6.0	KWESD5Z7.0
Marking	ZD	ZE	ZF	ZG	ZH

■ Typical Characteristics

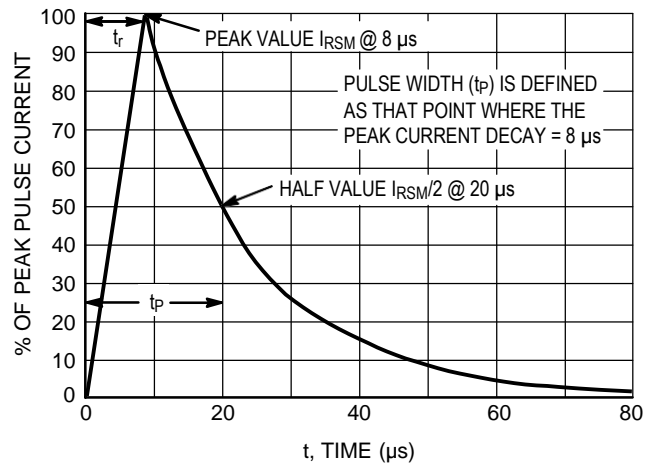
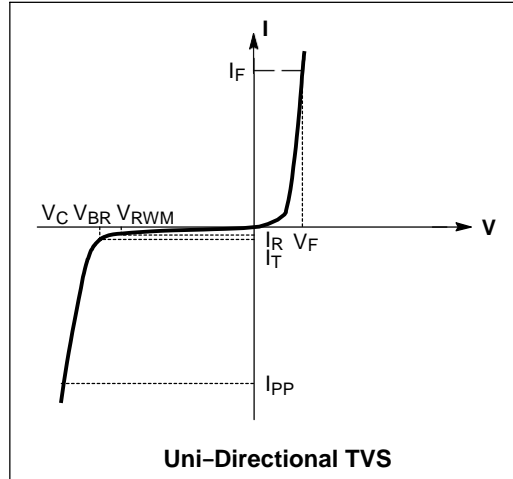
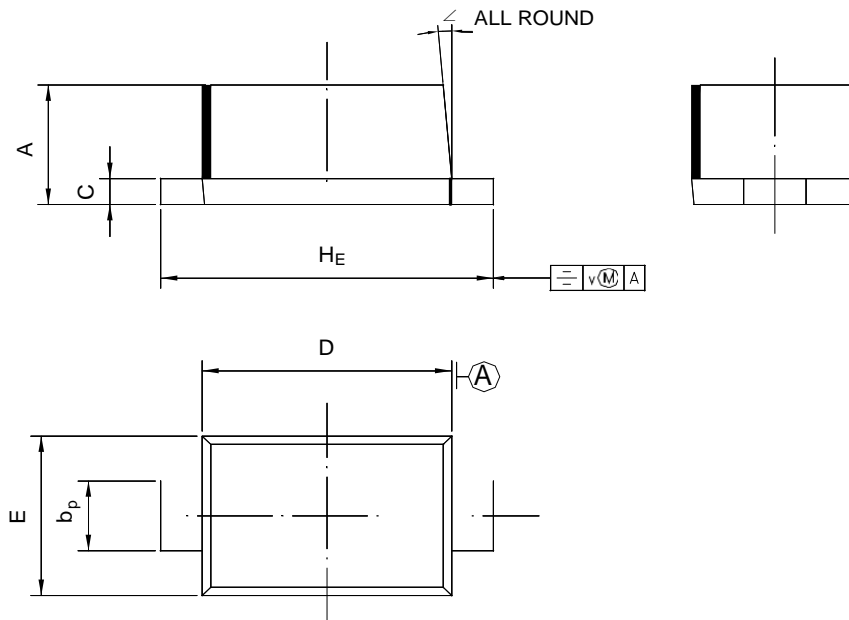


Figure 1. 8 x 20 μs Pulse Waveform

■ SOD-523



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°