Surface Mount Transient Voltage Suppressor

ESD5Z5.0

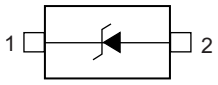
Features

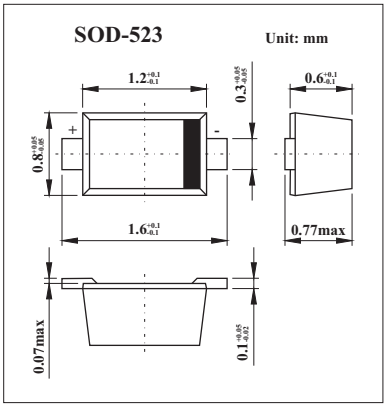
Peak Power up to 200 Watts @ 8 x 20 μs Pulse

Low Leakage

Response Time is Typically 1 ns

ESD Rating of Class 3 (> 16 kV) per Human Body Model





Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
ESD Voltage Per Human Body Model Per Machine Model		 16 400	 KV V
Electrostatic discharge IEC61000-4-2 Air discharge IEC61000-4-2 ContactAir discharge		 30 30	 KV
Electrostatic discharge IEC61000-4-4		 40	 A
Total Power Dissipation on FR?5 Board*1, @ T_A = 25℃	P_D	100	mW
Junction Temperature Range	T_L	260(10s)	℃
Lead Solder Temperature -Maximum	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to +150	℃

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

Electrical Characteristics (Ta = 25℃ 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
ESD5Z5.0	5.0	0.05	6.2	1.0	11.6	18.6	9.4	174	80

* 1. Surge current waveform per Fig.1

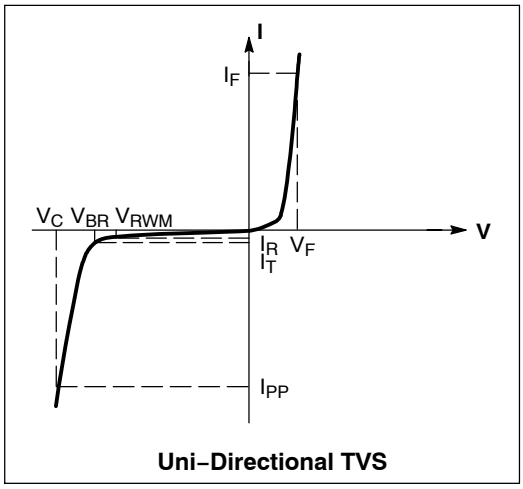
2. V_{BR} is measured with a pulse test current IT at an ambient temperature of 25℃.

Marking

Marking	ZF

ESD5Z5.0

Typical Characteristics



Uni−Directional TVS

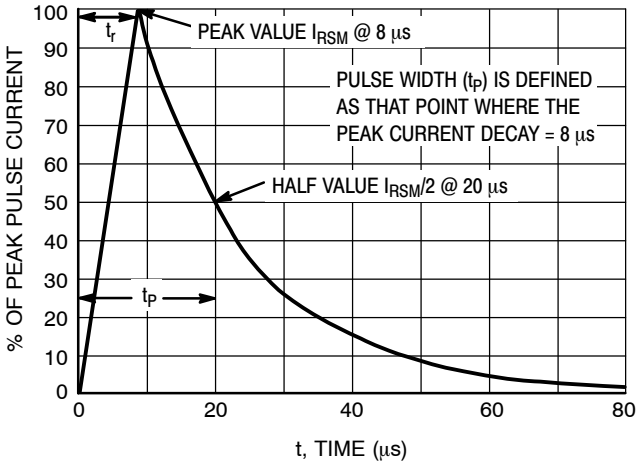


Figure 1. 8 x 20 μs Pulse Waveform