

## Surface Mount Transient Voltage Suppressor

### ESD5Z7.0

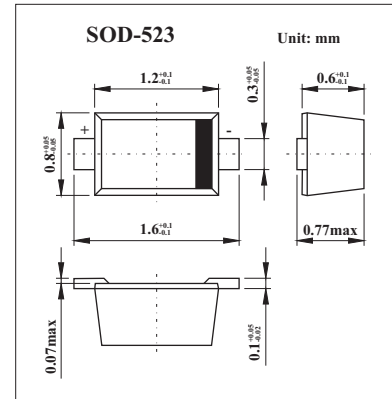
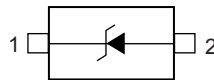
#### Features

Peak Power up to 200 Watts @ 8 x 20  $\mu$ s Pulse

Low Leakage

Response Time is Typically 1 ns

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



#### Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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 Contact Air discharge	30	
Electrostatic discharge	IEC61000-4-4	40	A
Total Power Dissipation on FR-5 Board*1, @ $T_a = 25^\circ\text{C}$	$P_D$	100	mW
Junction Temperature Range	$T_L$	260(10s)	$^\circ\text{C}$
Lead Solder Temperature -Maximum	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

#### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{ mA}$ for all types)

Device	$V_{RWM}(V)$	$I_R(\mu A)$ @ $V_{RWM}$	$V_{BR}(V)$ @ $I_T^*2$	$I_T$	$V_C(V)^*1$ @ $I_{PP}=5.0A$	$V_C(V)^*1$ @ $\text{Max } I_{PP}$	$I_{PP}(A)^*1$	$P_{PK}(W)^*1$	$C(pF)$
	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
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  $25^\circ\text{C}$ .

#### Marking

Marking	ZH
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Typical Characteristics

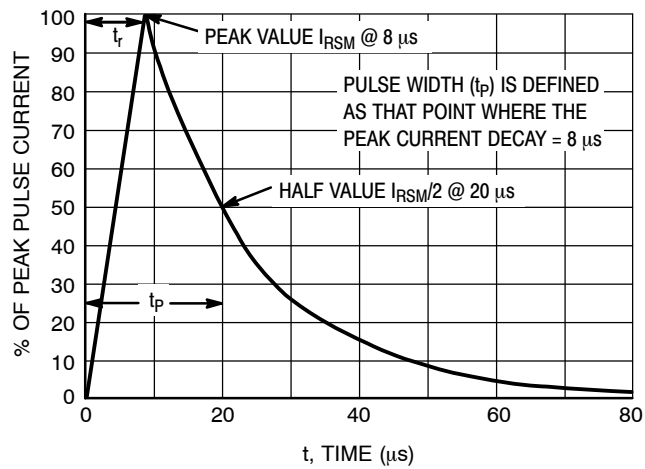
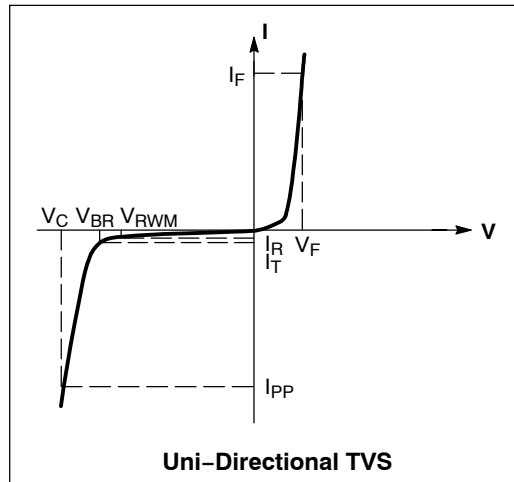


Figure 1. 8 x 20  $\mu s$  Pulse Waveform