

# ESD5Z5.0C

## 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)



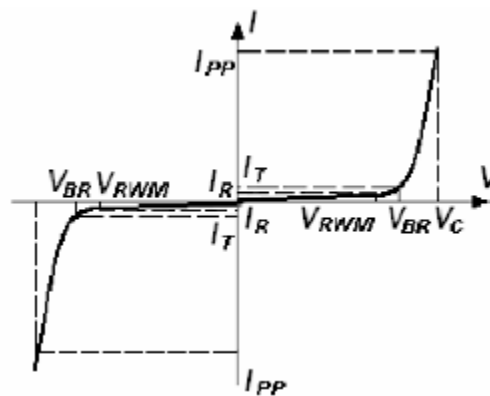
### ■ Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
<b>V<sub>pp</sub></b>	IEC61000-4-2(ESD) Air Contact	$\pm 15$ $\pm 8$	KV
<b>ESD</b>	Per Human Body Model	16	KV
<b>P<sub>D</sub></b>	Power Dissipation (Note 1)	150	mW
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150	°C
<b>T<sub>J</sub></b>	Operating Junction Temperature	+150	°C
<b>T<sub>L</sub></b>	Max Lead Solder Temperature range (10 Second Duration)	260	°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
$I_{FP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{FP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



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

Device Type	$V_{RWM}$ (Volts)	$I_R @ V_{RWM}$ ( $\mu\text{A}$ )	$V_{BR} @ I_T$ (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  $25^\circ\text{C}$ .

## ■ SURGE CURRENT WAVEFORM:

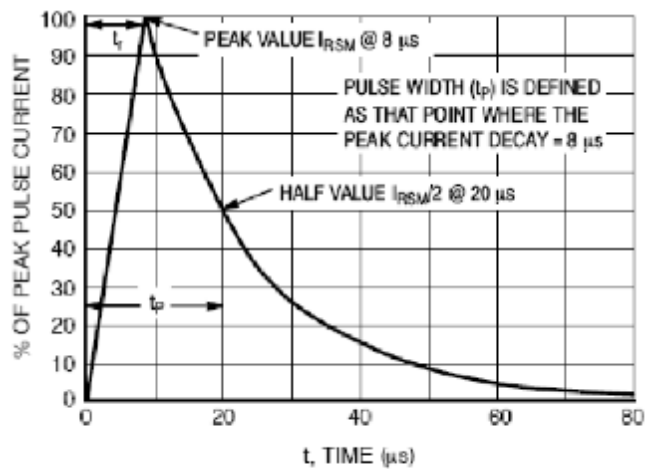
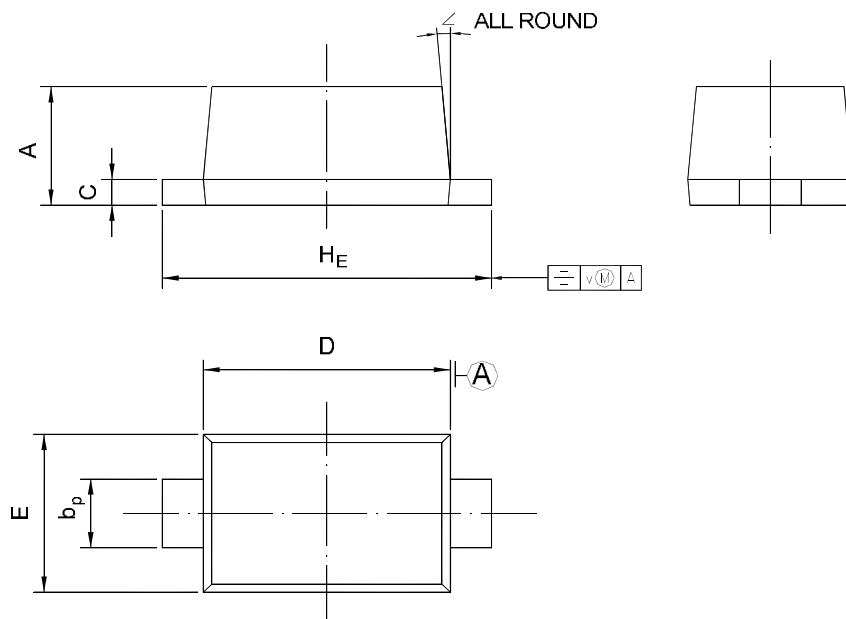


Figure 1.  $8 \times 20 \mu\text{s}$  Pulse Waveform

■ SOD-523



UNIT	A	$b_p$	C	D	E	$H_E$	V	$\angle$
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	$5^\circ$