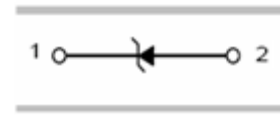


### Features

- ESD / transient protection of high speed data lines
  - IEC 61000-4-2 (ESD):  $\pm 30$  kV (air),  $\pm 30$  kV (contact)
- Working voltage:  $V_{RWM} = 15V$
- Very Low Leakage current
- Very low load capacitance

HF



SOD-523

### Mechanical Data

- Case: SOD-523
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

### Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
GESD15VD5	SOD-523	3000pcs / Tape & Reel	N4

### Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	$V_{ESD-A}$	$\pm 30$	kV
IEC 61000-4-2; ESD (Contact)	$V_{ESD-C}$	$\pm 30$	kV
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ )	$P_{PP}$	180	W
Peak Pulse Current ( $t_p = 8/20\mu\text{s}$ )	$I_{PP}$	6	A

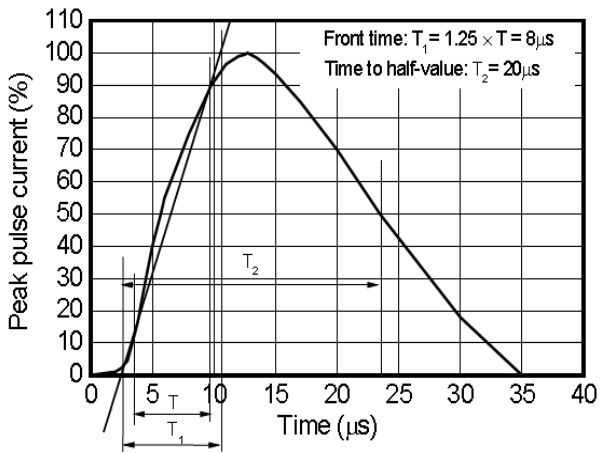
### Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

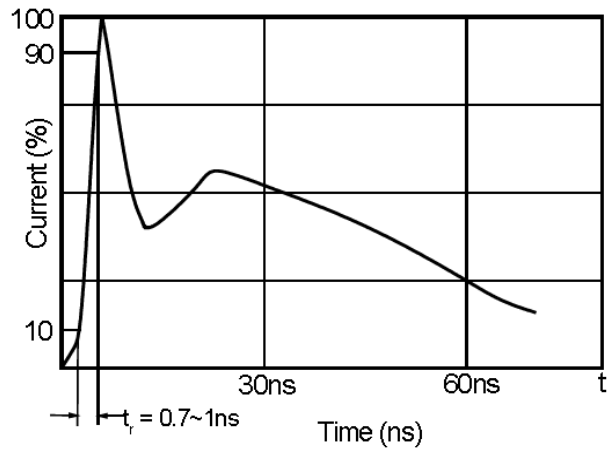
### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	$V_{RWM}$		-	-	15	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 1\text{mA}$	16.7	-	20	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 15V$	-	-	1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	-	23	V
		$I_{PP} = 6\text{A}, t_p = 8/20\mu\text{s}$	-	-	30	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1\text{MHz}$	-	48	-	pF

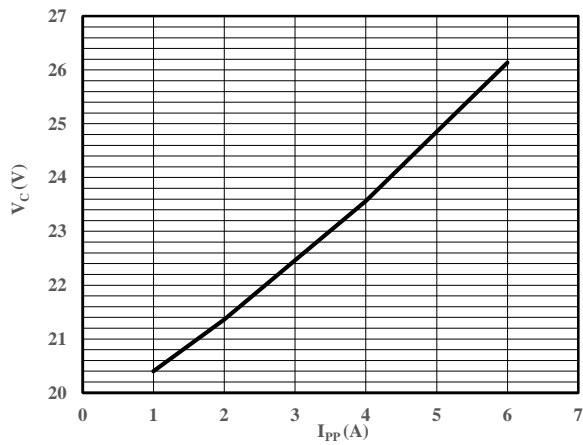
**Ratings and Characteristic Curves** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)



**Fig 1** 8/2 0 $\mu\text{s}$  waveform per IEC61000-4-5

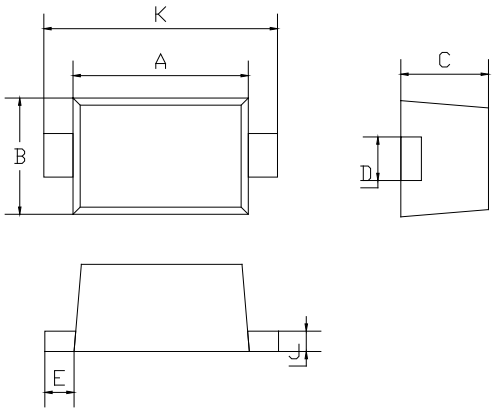


**Fig 2** ESD pulse waveform according to IEC61000-4-2



**Fig 3** Clamping Voltage vs. Peak Pulse Current

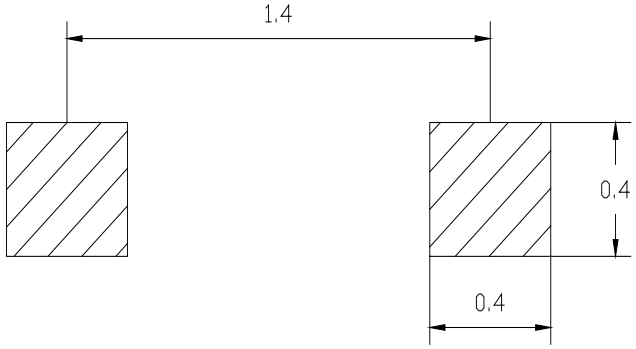
**Package Outline Dimensions** (Unit: mm)



SOD-523		
Dimension	Min.	Max.
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

**Package Outline Dimensions** (Unit: mm)

**SOD-523**



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