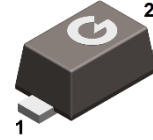
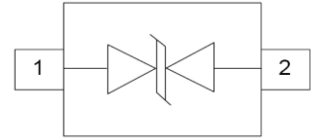


Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 30 kV (air), ± 30 kV (contact)
- Working voltage: $V_{RWM} = 3.3V$
- Low reverse clamping voltage

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
GESD3V3B5	SOD-523	3000 pcs / Tape & Reel	N3

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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	± 30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	± 30	kV
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	270	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	18	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	250	$^\circ C/W$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	170	$^\circ C/W$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	180	$^\circ C/W$
Junction Temperature	T_J	-40 ~ +150	$^\circ C$
Storage Temperature Range	T_{STG}	-40 ~ +150	$^\circ C$

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

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}		-	-	3.3	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 5\text{mA}$	4	-	6	V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	-	7	V
		$I_{PP} = 18\text{A}, t_p = 8/20\mu\text{s}$	-	-	15	V
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	50	pF

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

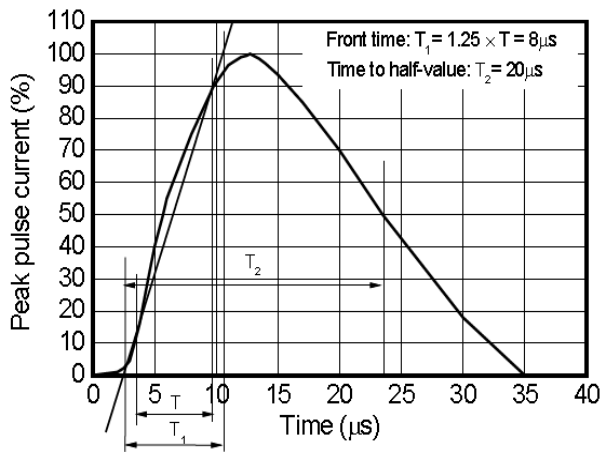


Fig 1 8/20 μs waveform per IEC61000-4-5

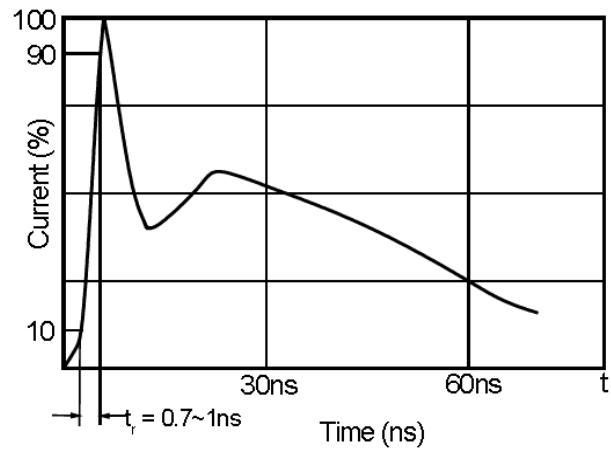


Fig 2 ESD pulse waveform according to IEC61000-4-2

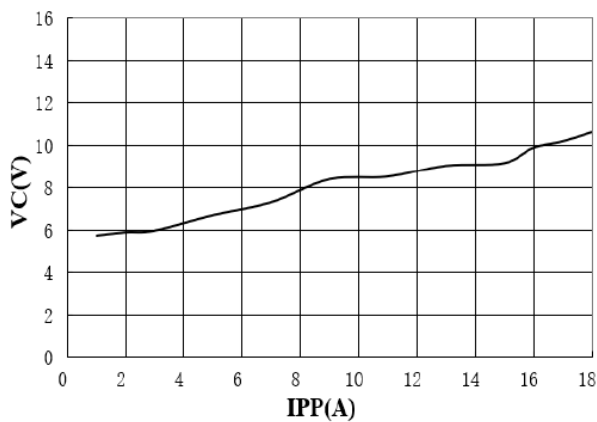
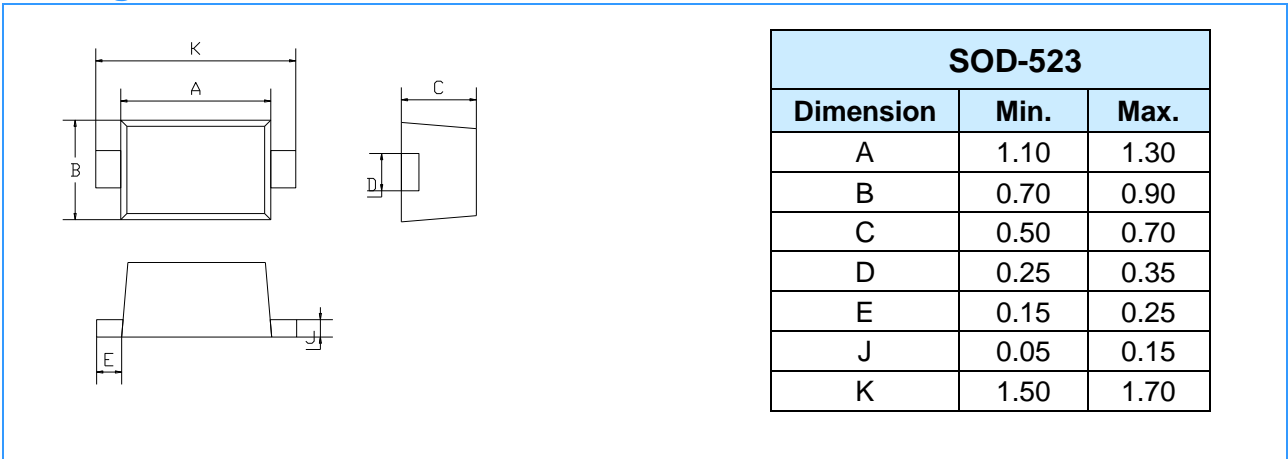
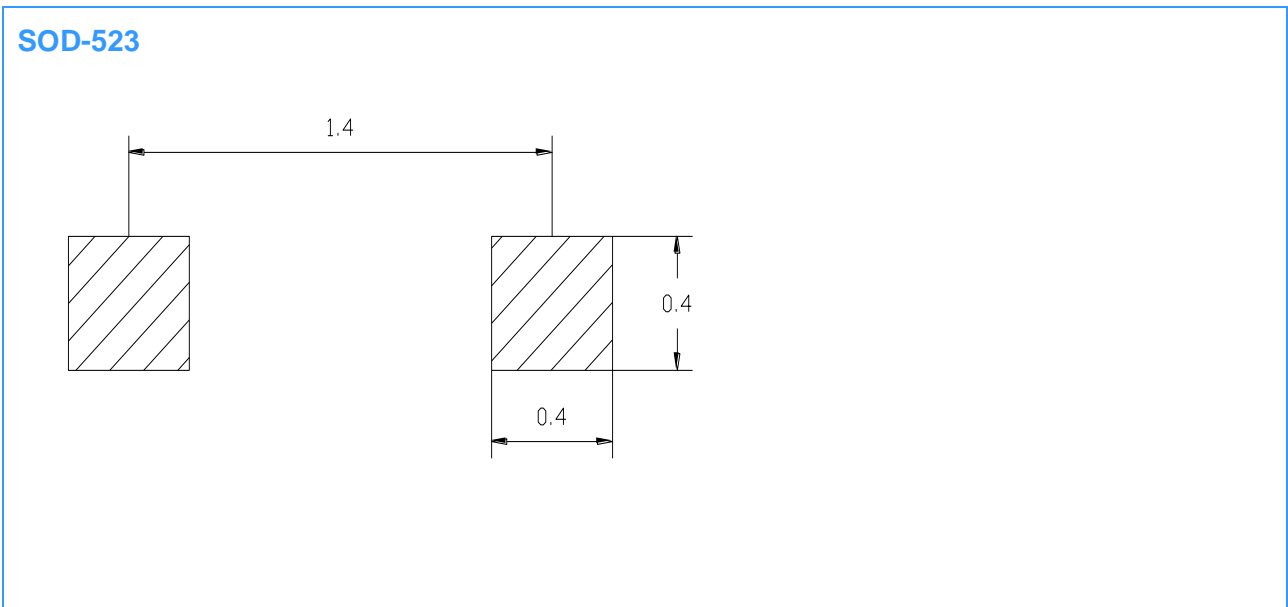


Fig 3 Clamping Voltage vs. Peak Pulse Current

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



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