

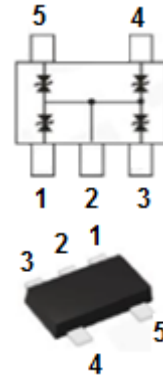
Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 15 kV (air), ± 8 kV (contact)
- Low reverse stand-off voltage: 5V
- Low clamping voltage

HF

Mechanical Data

- Case: SOT-553
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin-Plated Leads, Solderability-per MIL-STD-202, Method 208



SOT-553

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
GESD5V0L4BV	SOT-553	3000 pcs / Tape & Reel	L4

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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air) ^{*1}	$V_{\text{ESD-A}}$	± 15	kV
IEC 61000-4-2; ESD (Contact) ^{*1}	$V_{\text{ESD-C}}$	± 8	kV
JESD22-A114-B; ESD (Human Body) ^{*1}	$V_{\text{ESD-HB}}$	± 10	kV
JESD22-A114-B; ESD (Machine) ^{*1}	$V_{\text{ESD-M}}$	± 0.4	kV
Peak Pulse Power ($t_p = 8/20\mu\text{s}$) ^{*2}	P_{PP}	30	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) ^{*2}	I_{PP}	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Lead Solder Temperature (10 Seconds Duration)	T_L	260	$^\circ\text{C}$
Junction Temperature	T_J	-55 to +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}		-	-	5	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 1\text{mA}$	6.5	7.5	10	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$	-	-	100	nA
Clamping Voltage ^{*2}	V_C	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$	-	-	12	V
		$I_{PP} = 2\text{A}$, $t_p = 8/20\mu\text{s}$	-	-	15	
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	0.6	0.8	pF

Notes:

- Device stressed with ten non-repetitive ESD pulses, Per channel(I/O to GND)
- Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

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

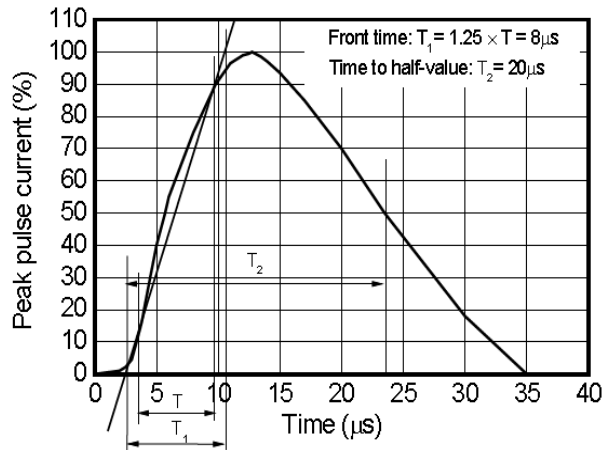


Fig 1 8/20 μs waveform per IEC61000-4-5

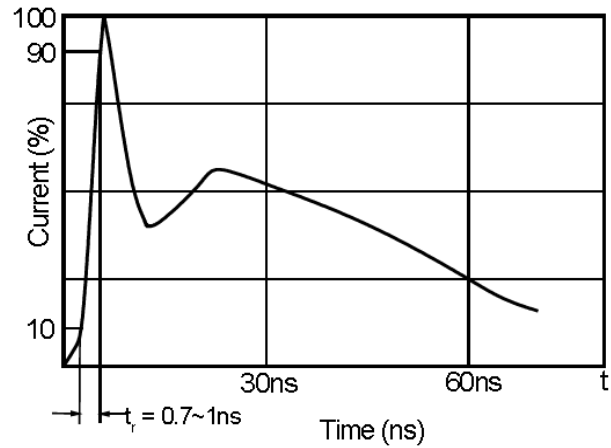


Fig 2 ESD pulse waveform according to IEC61000-4-2

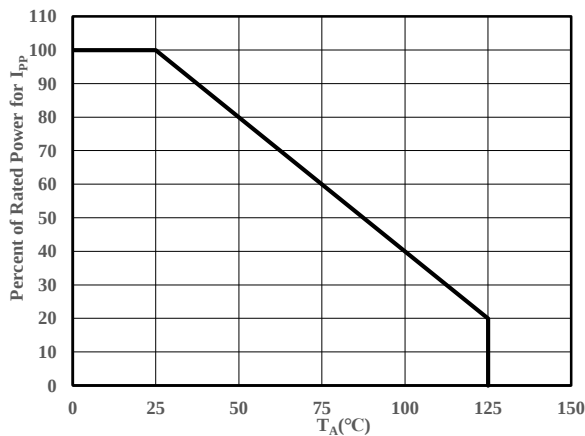


Fig 3 Power Derating Curve

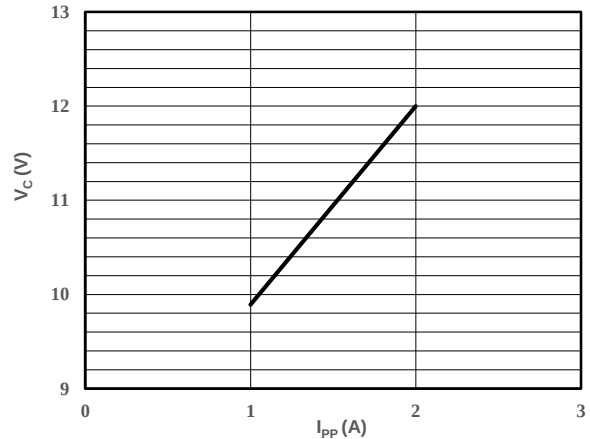
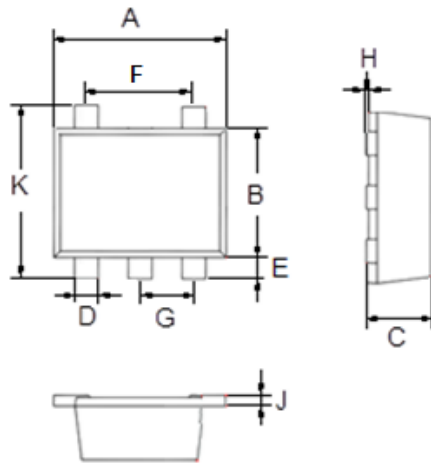


Fig 4 Clamping Voltage vs. Peak Pulse Current

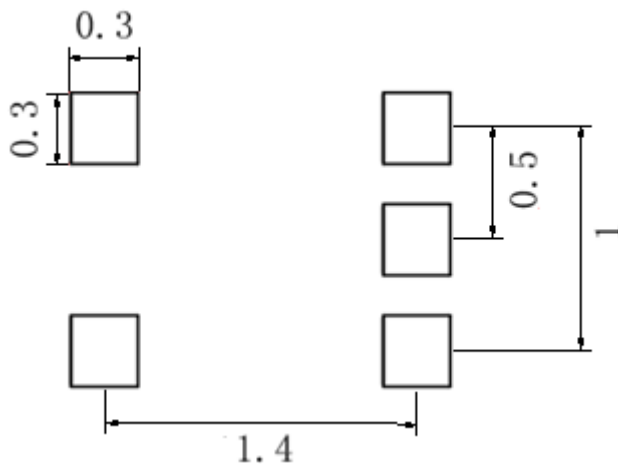
Package Outline Dimensions (Unit: mm)



SOT-553		
Dimension	Min.	Max.
A	1.500	1.700
B	1.100	1.300
C	0.525	0.600
D	0.170	0.270
E	0.100	0.300
F	0.400	0.600
G	0.450	0.550
H	0.000	0.050
J	0.090	0.160
K	1.500	1.700

Package Outline Dimensions (Unit: mm)

SOT-553



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