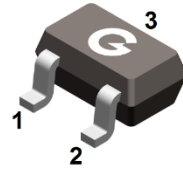
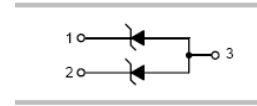


Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 15 kV (air), ± 8 kV (contact)
- Working Voltage: 5V
- Low Clamping Voltage
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF



SOT-323

Mechanical Data

- Case: SOT-323
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping	Marking Code
TGESD5V0CI	SOT-323	3000 pcs / Tape & Reel	ZF

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

Characteristic	Symbol	Value	Unit
Peak pulse power ($t_p = 8/20\mu\text{s}$)	P_{PK}	100	W
Peak pulse current ($t_p = 8/20\mu\text{s}$)	I_{PP}	4	A
Reverse Stand-off Voltage	V_{RWM}	5	V
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	± 15	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	± 8	kV

Thermal Characteristics

Parameter	Symbol	Value	Unit
Junction temperature	T_J	$-55 \sim +125$	$^\circ\text{C}$
Storage temperature range	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V_{BR}	$I_T=1\text{mA}$	6.5	-	9	V
Reverse leakage current	I_R	$V_{RWM}=5\text{V}$	-	-	100	nA
Clamping voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	-	-	15	V
		$I_{PP}=4\text{A}$, $t_p=8/20\mu\text{s}$	-	-	25	
Junction capacitance	C_J	Pin 1 to 2 $V_R=0\text{V}$, $f=1\text{MHz}$	-	0.5	0.6	pF

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

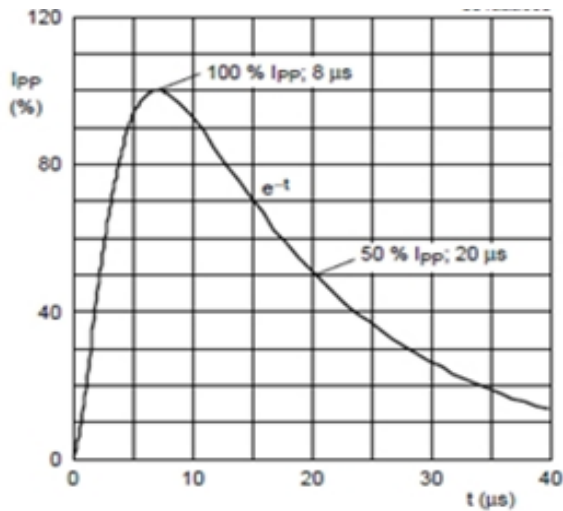


Fig1. 8/20us pulse waveform according to IEC61000-4-5

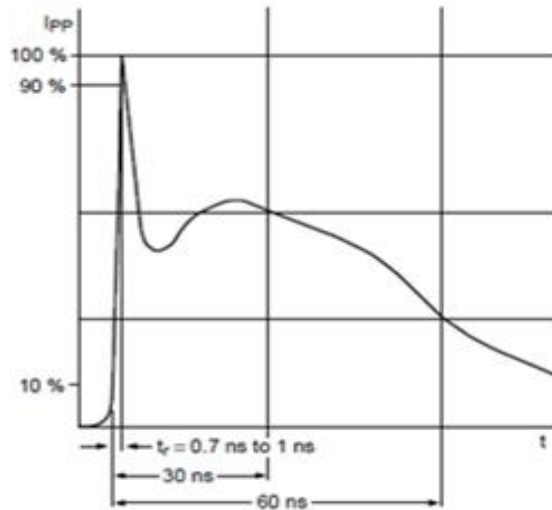
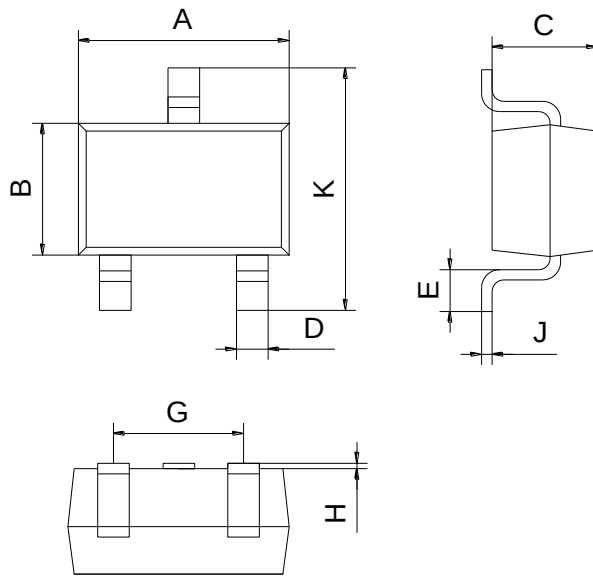


Fig2. ESD pulse waveform according to IEC61000-4-2

Package Outline Dimensions (unit: mm)



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout (unit: mm)

