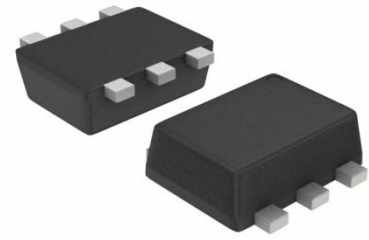


## Features

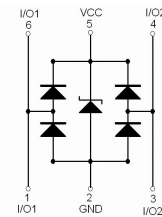
- Uni-directional ESD protection of two lines
- Low capacitance: 0.8pF(max)
- Low reverse clamping voltage
- Low leakage current
- IEC 61000-4-2 Level 4 ESD protection
- SOT-563 package
- RoHS compliant

## Applications

- Digital Visual Interface (DVI)
- LVDS
- USB 2.0,USB3.0
- High Definition Multi-Media Interface (HDMI)



**SOT-563**



**Schematic Diagram**

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

Parameter	Symbol	Limit	Unit	
IEC 61000-4-2 ESD Voltage(I/O to GND & $V_{CC}$ to GND)	$V_{ESD}^{(1)}$	Air Model	$\pm 25$	kV
		Contact Model	$\pm 25$	
		Per Human Body Model	$\pm 16$	
		Machine Model	$\pm 0.4$	
ESD Voltage(I/O to GND & $V_{CC}$ to GND)				
Peak Pulse Power	$P_{PP}^{(2)}$	90	W	
Peak Pulse Current	$I_{PP}^{(2)}$	3.5	A	
Lead Solder Temperature – Maximum (10 Second Duration)	$T_L$	260	$^{\circ}\text{C}$	
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$	

(1).Device stressed with ten non-repetitive ESD pulses.

(2).Non-repetitive current pulse 8/20 $\mu\text{s}$  exponential decay waveform according to IEC61000-4-5.

## Electrical Characteristics

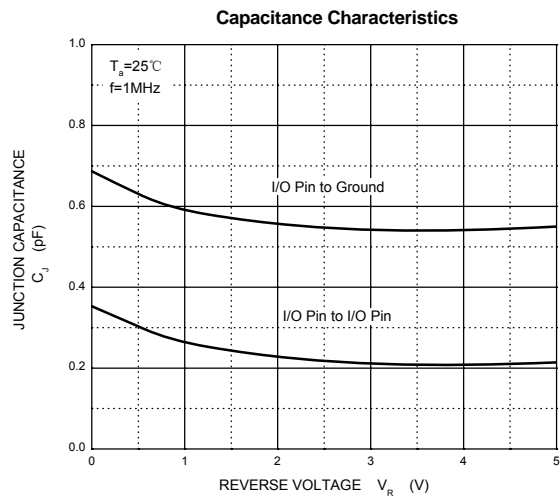
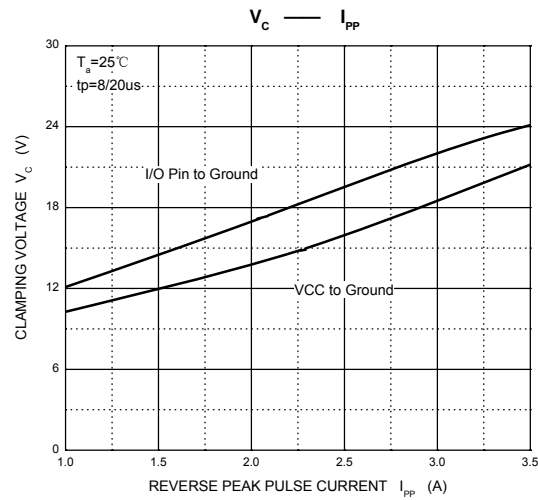
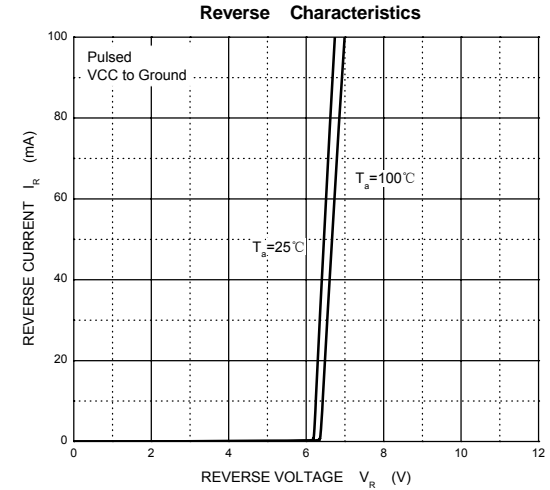
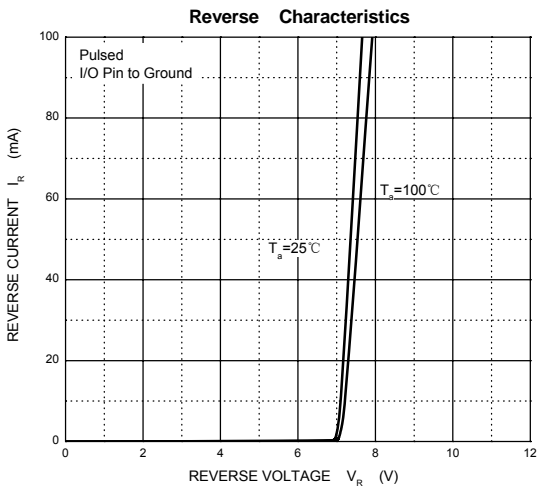
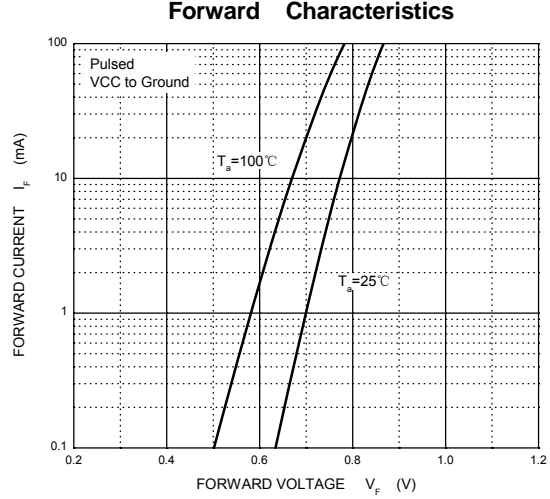
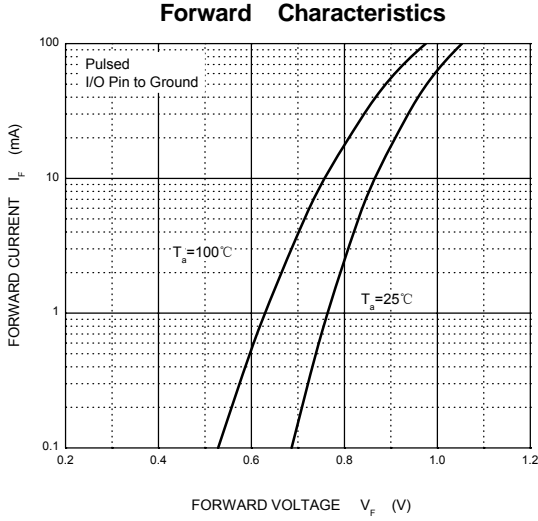
(T<sub>A</sub>=25°C, Unless otherwise specified.)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Per channel(I/O to GND unless otherwise specified)						
Reverse Stand Off Voltage	V <sub>RWM</sub> <sup>(1)</sup>				5	V
Breakdown Voltage	V <sub>(BR)</sub>	I <sub>T</sub> =1mA	6		10	V
		I <sub>T</sub> =1mA V <sub>CC</sub> to GND	5		12	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5V (I/O to GND & V <sub>CC</sub> to GND)			1	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10mA (I/O to GND & V <sub>CC</sub> to GND)	0.4		1.5	V
Clamping Voltage	V <sub>C</sub> <sup>(2)</sup>	I <sub>PP</sub> =1A (I/O to GND & V <sub>CC</sub> to GND)			13	V
		I <sub>PP</sub> =3.5A (I/O to GND & V <sub>CC</sub> to GND)			25	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V,f=1MHz		0.6	0.8	pF
		V <sub>R</sub> =0V,f=1MHz, I/O to I/O		0.3	0.4	pF

(1).Other voltages available upon request.

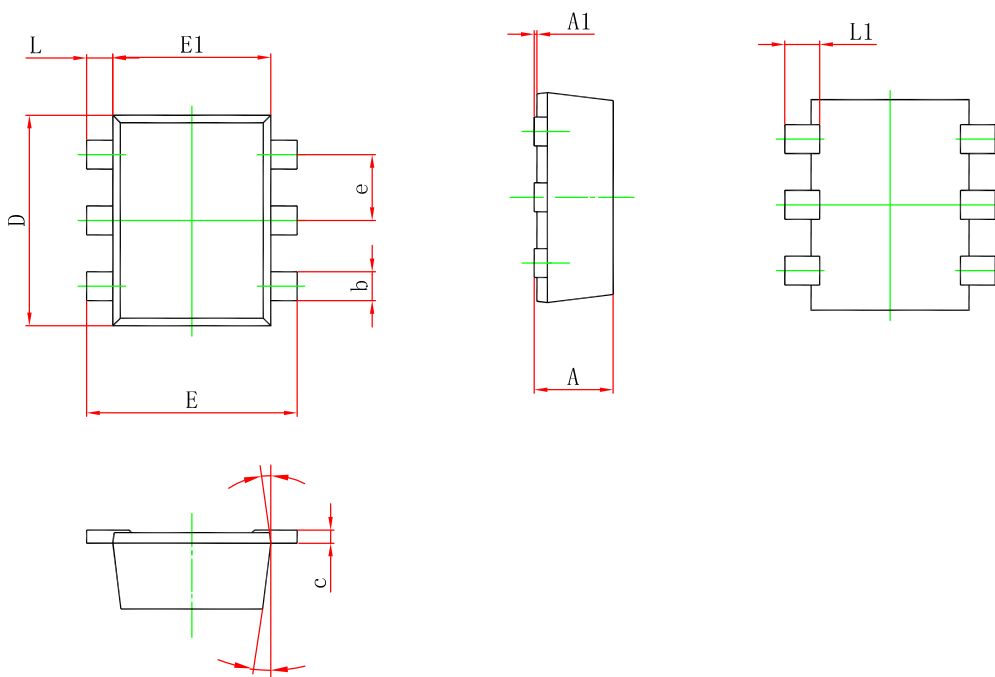
(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

**Typical Characteristic Curves**



**Package Outline Dimensions**

SOT-563



Symbol	Dimensions In Millimeters		Dimensions in inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	0.000	0.050	0.000	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
L1	0.200	0.400	0.008	0.016
θ	7 °REF.		7 °REF.	

**Order Information**

Device	Package	Marking	Carrier	Quantity	HSF Status
GSESLC5VT563S-6U	SOT-563	U5N2	Tape & Reel	3000pcs/Reel	RoHS compliant