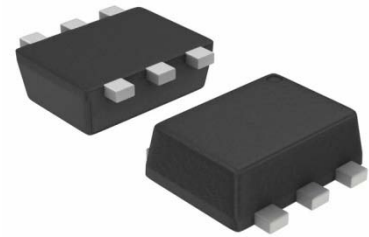


Features

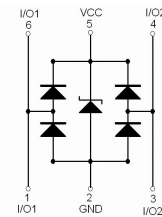
- Uni-directional ESD protection of two lines
- Low capacitance: 0.8pF(max)
- Low reverse clamping voltage
- Low leakage current
- IEC 61000-4-2 Level 4 ESD protection
- SOT-563 package
- RoHS compliant

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	± 25	kV
		Contact Model	± 25	
		Per Human Body Model	± 16	
		Machine Model	± 0.4	
JESD22-A114-B ESD Voltage(I/O to GND & V_{CC} to GND)				
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 μs exponential decay waveform according to IEC61000-4-5.

Electrical Characteristics

(T_A=25°C, Unless otherwise specified.)

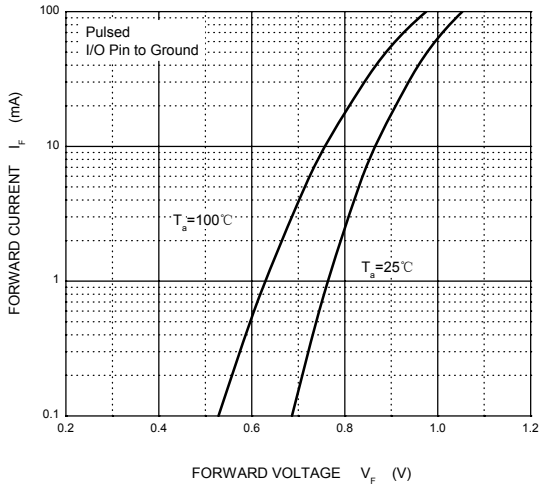
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Per channel(I/O to GND unless otherwise specified)						
Reverse Stand Off Voltage	V _{RWM} ⁽¹⁾				5	V
Breakdown Voltage	V _(BR)	I _T =1mA	6		10	V
		I _T =1mA V _{CC} to GND	5		12	V
Reverse Leakage Current	I _R	V _{RWM} =5V (I/O to GND & V _{CC} to GND)			1	μA
Forward Voltage	V _F	I _F =10mA (I/O to GND & V _{CC} to GND)	0.4		1.5	V
Clamping Voltage	V _C ⁽²⁾	I _{PP} =1A (I/O to GND & V _{CC} to GND)			13	V
		I _{PP} =3.5A (I/O to GND & V _{CC} to GND)			25	V
Junction Capacitance	C _J	V _R =0V,f=1MHz		0.6	0.8	pF
		V _R =0V,f=1MHz, I/O to I/O		0.3	0.4	pF

(1).Other voltages available upon request.

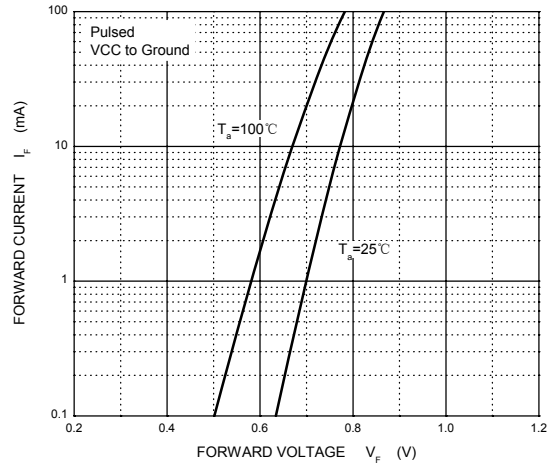
(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

Typical Characteristic Curves

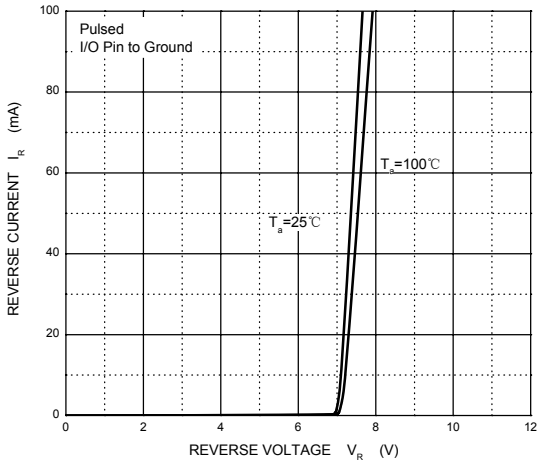
Forward Characteristics



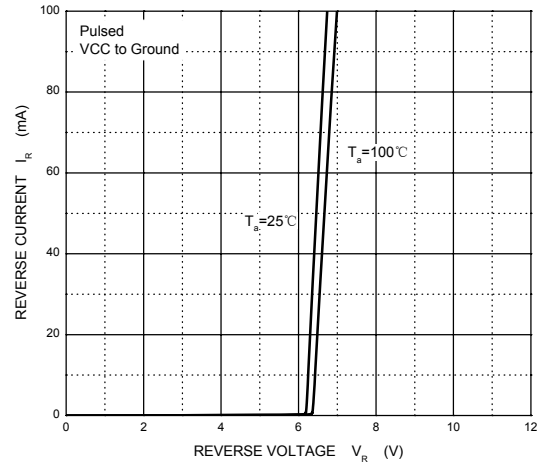
Forward Characteristics



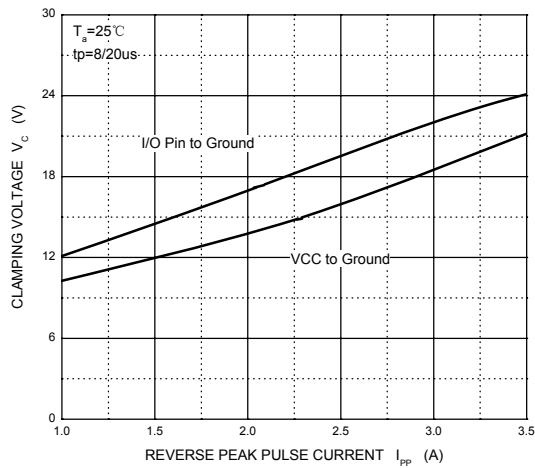
Reverse Characteristics



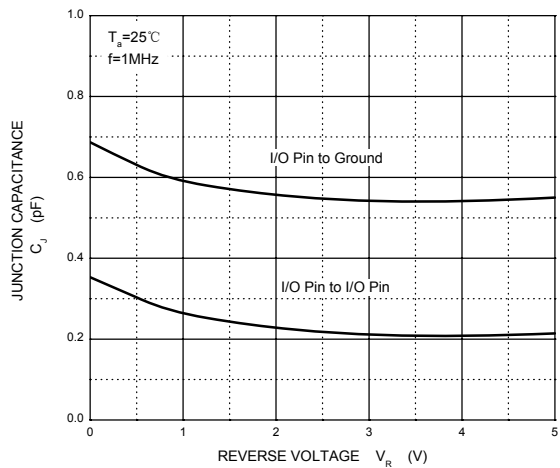
Reverse Characteristics



V_C — I_{PP}

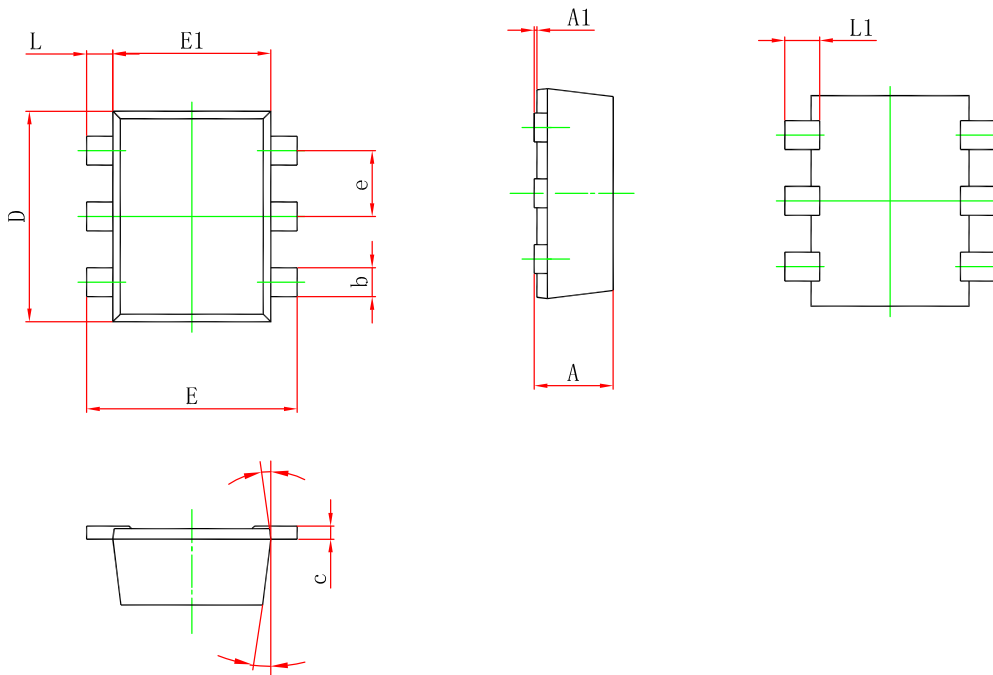


Capacitance Characteristics



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
0	7 °REF.		7 °REF.	

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
SPESLC5VT563S-6U	SOT-563	U5N2	Tape & Reel	3000pcs/Reel	RoHS compliant