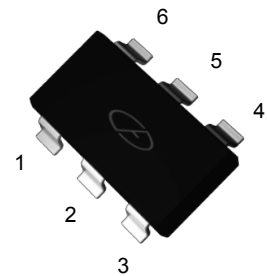


Features

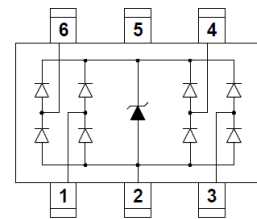
- SOT-363 package
- Protects up to 4-Lines operating at 5V
- Snap-Back technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance (0.2pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
 - IEC 61000-4-2 ±10KV contact; ±15KV air;
 - IEC 61000-4-4 (EFT) 40A (5/50ns);
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)



SOT-363

Applications

- USB 3.0/3.1
- HDMI 1.4/2.0, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Current (T _P =8/20 μS)	I _{PP}	5	A
ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±10	KV
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±15	KV
Junction Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand - Off Voltage	V _{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	5.5	6.0	10	V
Reverse Leakage Current	I _R	V _R =5V	-	0.01	0.1	μA
Trigger Voltage (IEC 61000-4-5)	V _T	I _{PP} =5A, T _P =8/20μS	-	8	-	V
Clamping Voltage (IEC 61000-4-5)	V _C	I _{PP} =5A, T _P =8/20μS	-	4	-	V
Clamping Voltage (TLP 8A)	V _C	IEC 61000-4-2 Level 2 (±4kV Contact, ±4kV Air)	-	4.5	-	V
Clamping Voltage (TLP 16A)	V _C	IEC 61000-4-2 Level 4 (±8kV Contact, ±8kV Air)	-	5.5	-	V
Dynamic Resistance	R _{dym}	I _T =0 - 30A, T _P =TLP	-	0.25	-	Ω
Junction Capacitance	C _J	V _R =0V, F=1MHz, I/O to I/O	-	0.20	-	pF
		V _R =0V, F=1MHz, I/O to GND	-	0.50	-	pF

Typical Characteristic Curves

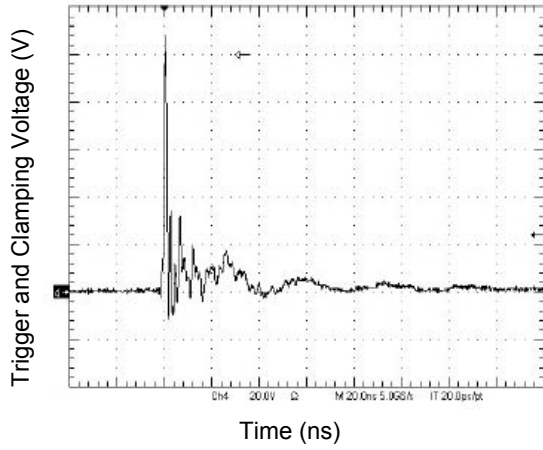


Figure 1. IEC61000-4-2 +8kV Contact Discharge

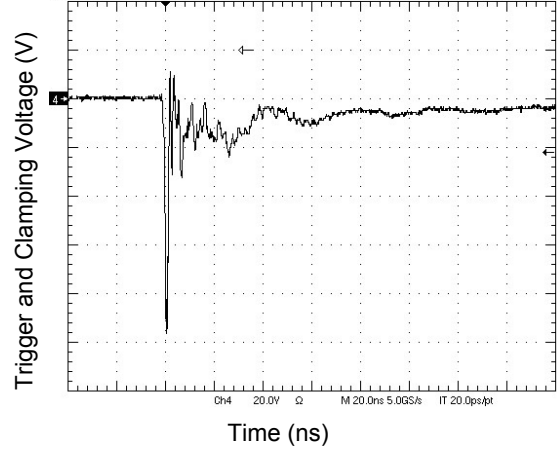
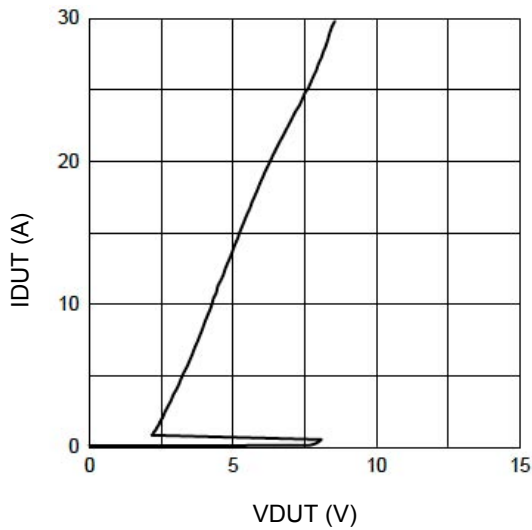
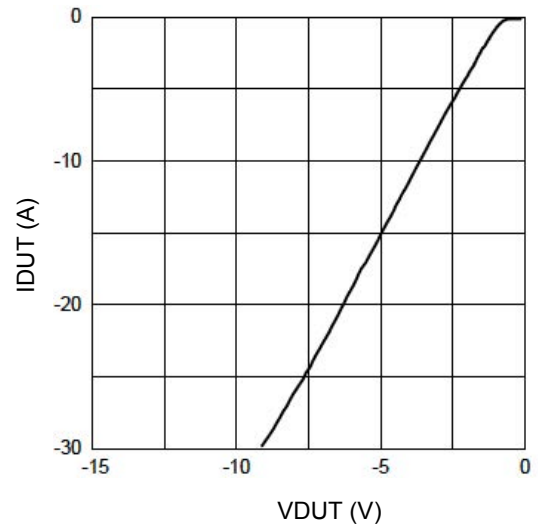


Figure 2. IEC61000-4-2 -8kV Contact Discharge

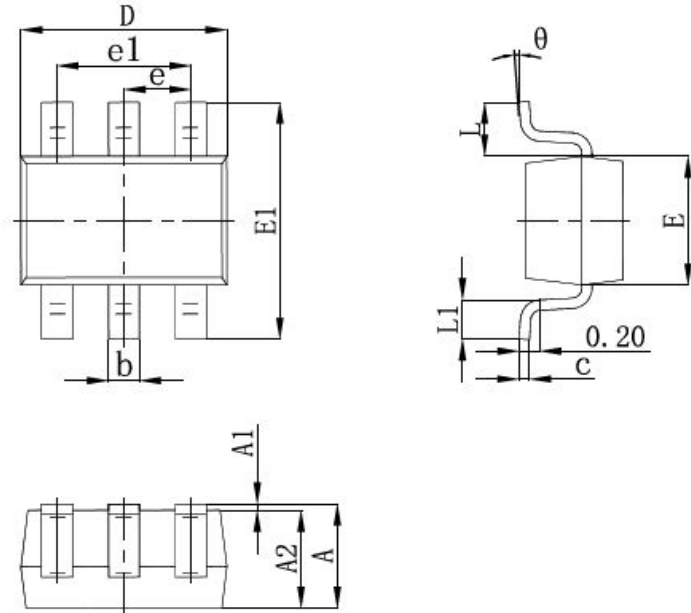


**Figure 3. Transmission Line Pulse ($T_P=100\text{ns}$)
(I/O to GND)**



**Figure 4. Transmission Line Pulse ($T_P=100\text{ns}$)
(GND to I/O)**

Package Outline Dimensions SOT-363



Symbol	Dimensions in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°

Order Information

Device	Package	Marking	Carrier	Quantity
GSEK5U005	SOT-363	5S	Tape & Reel (7")	3000 pcs / Reel