

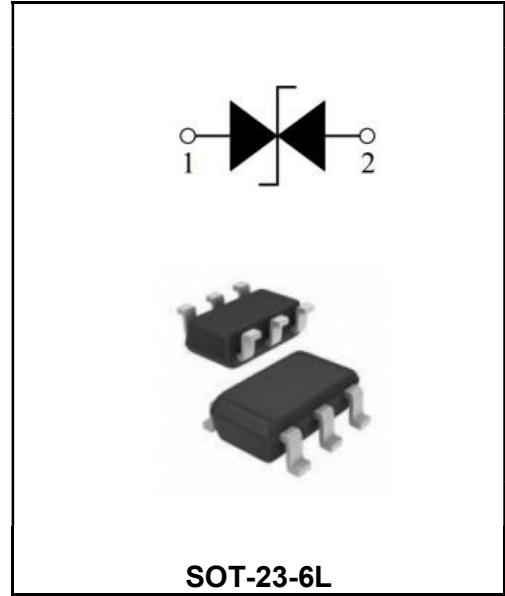
**Transient Voltage Suppressor**

**Features**

- ◆Low capacitance: 0.45pF(typ.)
- ◆Reverse working voltage: 5V
- ◆IEC 61000-4-2 ±25 KV contact ±25 KV Air
- ◆IEC 61000-4-4 (EFT) 60A
- ◆IEC 61000-4-5 (Lightning 8/20µs): 3.5A

**Application**

- ◆Desktop, Servers and Notebooks
- ◆USB2.0 data line protection
- ◆HDMI 1.4/2.0
- ◆Industrial instruments
- ◆Digital visual interfaces (DVI)



**Order Information**

Part Number	Package	Marking	Size (mm)	Delivery Form	Delivery Quantity
ESD5VUT236	SOT-23-6L	C16**	2.9X2.8X1.1	7" T&R	3000PCS/Tape

**Limiting Values(TA = 25 °C, unless otherwise specified)**

Symbol	Parameter	Conditions	value	Unit
V <sub>ESD</sub>	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	±25	kV
		IEC 61000-4-2; Air Discharge	±25	kV
P <sub>PP</sub>	Peak Pulse Power	tP = 8/20 µs	45	W
I <sub>PPM</sub>	Rated Peak Pulse Current	tP = 8/20 µs	3.5	A
T <sub>L</sub>	Lead Soldering Temperature	-	260(10seconds)	°C
T <sub>J</sub>	Junction Temperature	-	-55 to+125	°C
T <sub>stg</sub>	Storage Temperature Range	-	-55 to+125	°C

**Electrical Characteristics(TA = 25 °C unless otherwise specified)**

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V <sub>RWM</sub>	Reverse Working Voltage	TA = 25 °C	-	-	5.0	V
V <sub>BR</sub>	Breakdown Voltage	IT = 1mA	6.8	-	-	V
I <sub>R</sub>	Reverse Leakage Current	VRWM = 5 V; TA = 25 °C	-	5	30	nA
I <sub>PPM</sub>	Peak Pulse Current	tP = 8/20 µs	-	-	3.5	A
V <sub>C</sub>	Clamping Voltage	IPP=3.5A, tP =8/20µs	-	10	13	V
R <sub>DYN</sub>	Dynamic Resistance	IO to GND	-	0.49	-	Ω
C <sub>J</sub>	Junction Capacitance	VR = 0V, f = 1 MHz IO to GND	-	0.42	0.55	pF

Typical Characteristics

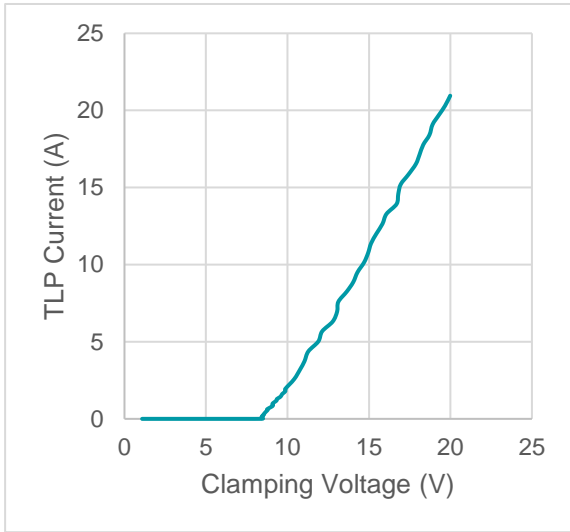


Fig.1 TLP Curve

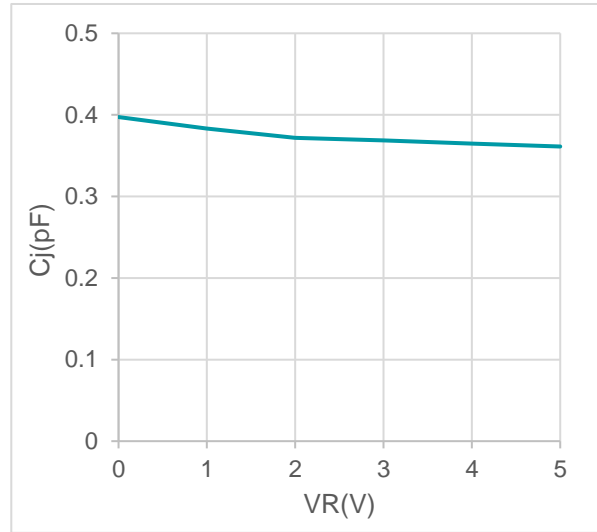


Fig.2 Junction Capacitance @ f=1MHz Surge Clamping voltage (IEC61000-4-5)

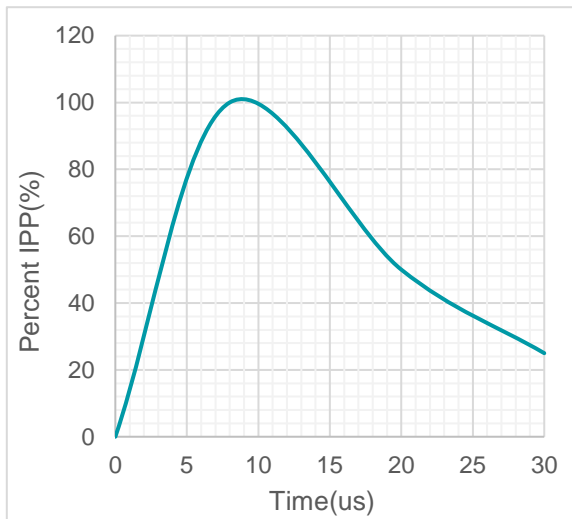


Fig.3 IEC61000-4-5 test waveform (tr=8/20us)

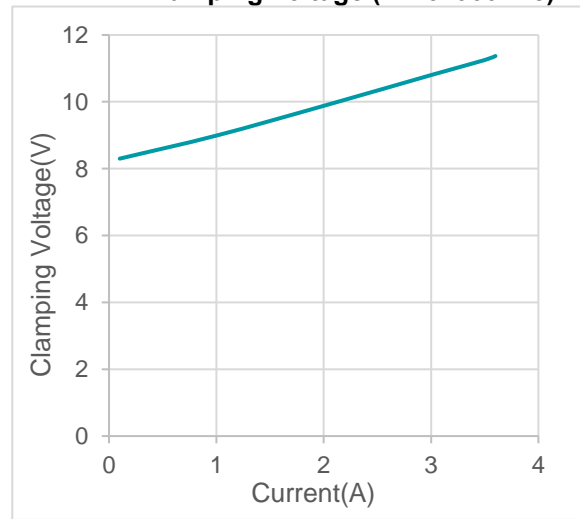


Fig. 4 Surge Clamping voltage (IEC61000-4-5)

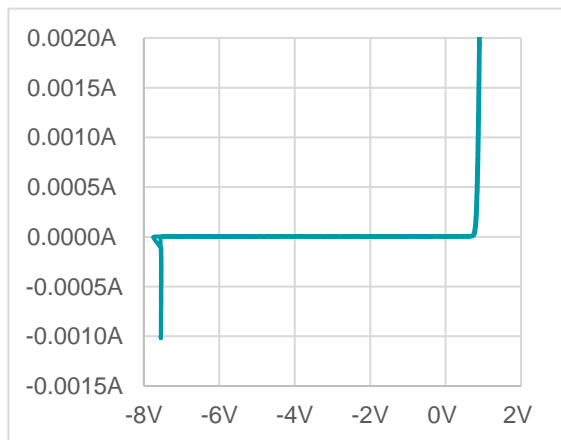
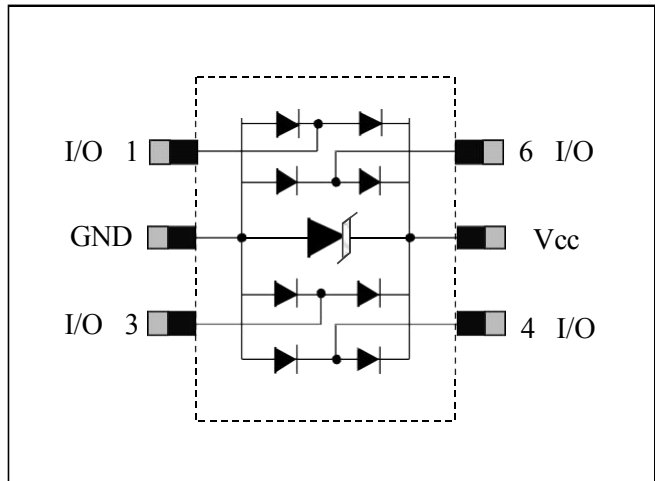
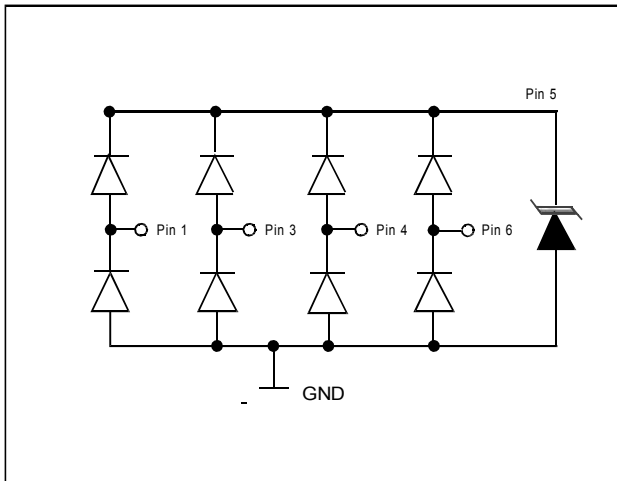
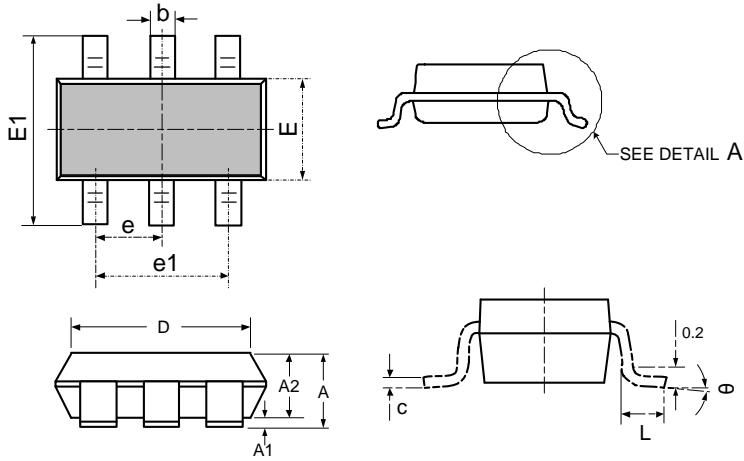


Fig.5 I-V Curve

Schematic&Pin Configuration



Package Dimension



DIMENSIONS				
SYMBOL	INCHES		MILLIMETER	
	MIN	MAX	MIN	MAX
A	0.041	0.049	1.050	1.250
A1	0.000	0.004	0.000	0.100
A2	0.041	0.045	1.050	1.150
D	0.111	0.119	2.820	3.020
E	0.059	0.067	1.500	1.700
E1	0.104	0.116	2.650	2.950
b	0.012	0.020	0.300	0.500
e	0.037(BSC)		0.950(BSC)	
e1	0.071	0.079	1.800	2.000
L	0.012	0.024	0.300	0.600
θ	0°	8°	0°	8°

