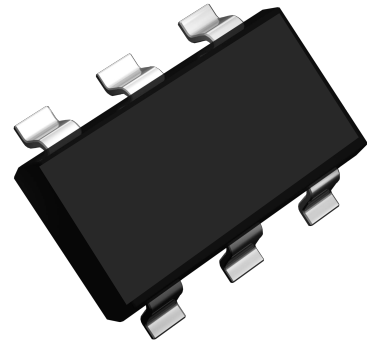


Features

- Low operating voltage: 5V
- Low capacitance: 0.7pF max (I/O to I/O)
- Solid-state silicon-avalanche and active circuit triggering technology
- Back-drive protection for power-down mode



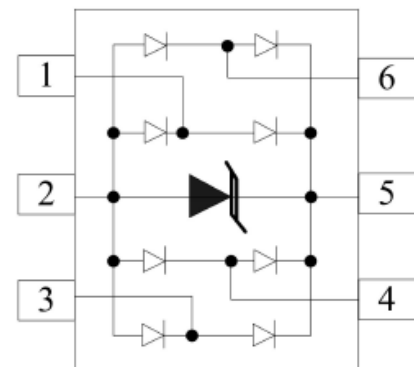
Package: SOT-23-6L

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) Level-3, 55A (5/50ns)
- IEC 61000-4-5 (Lightning) 7A (8/20 μs)

Mechanical Characteristics

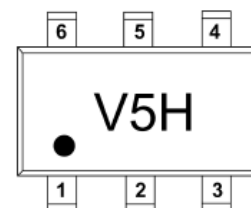
- SOT-23-6L package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS Compliant



Schematic Diagram

Applications

- Video/Graphics Card
- Digital Visual Interface (DVI)
- USB2.0 Power and Data lines protection
- Notebook and PC Computers
- Monitors and Flat Panel Displays



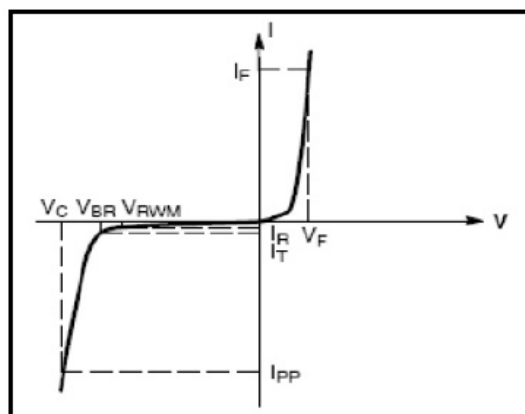
Marking Code

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

Parameter	Symbol	Value	Units
Peak Pulse Power($t_P = 8/20\mu\text{s}$)	P_{PP}	120	W
Peak Pulse Current($t_P = 8/20\mu\text{s}$)	I_{PP}	7	A
Operating Temperature	T_J	-55 to +85	°C
Storage Temperature	T_{STG}	-55 to +150	

Electrical Parameter

Parameter	Symbol
Clamping Voltage @ I_{PP}	V_C
Peak Pulse Current	I_{PP}
Breakdown Voltage @ I_T	V_{BR}
Test Current	I_T
Reverse Leakage Current @ V_{RWM}	I_R
Reverse Standoff Voltage	V_{RWM}
Forward Voltage @ I_F	V_F
Forward Current	I_F



V-I characteristics for a uni-directional TVS

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

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ.	Max	
Reverse standoff voltage	V_{RWM}	Pin5 to pin2 $T=25^\circ\text{C}$	-	-	5	V
Breakdown voltage	V_{BR}	$I_T=1\text{mA}$, Pin 5 to pin2	6	-	-	V
Reverse leakage current	I_R	$V_{RWM}=5\text{V}$, $T=25^\circ\text{C}$ Pin 5 to pin2	-	-	5	μA
Clamping voltage	V_C	$I_{PP}=7\text{A}$, $t_P=8/20\mu\text{s}$ I/O pin to GND	-	14.5	17.5	V
Forward voltage	V_F	$I_T=10\text{mA}$	-	0.8	1	V
Junction capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$, I/O to GND	-	-	1.5	pF
		$V_R=0\text{V}$, $f=1\text{MHz}$, I/O to I/O	-	-	0.7	

Ratings and Characteristic Curves

Figure 1: Peak Pulse Power vs. Pulse Time

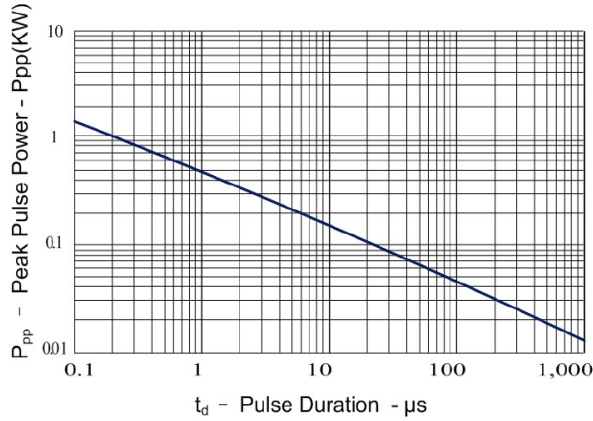


Figure 2: Power Derating Curve

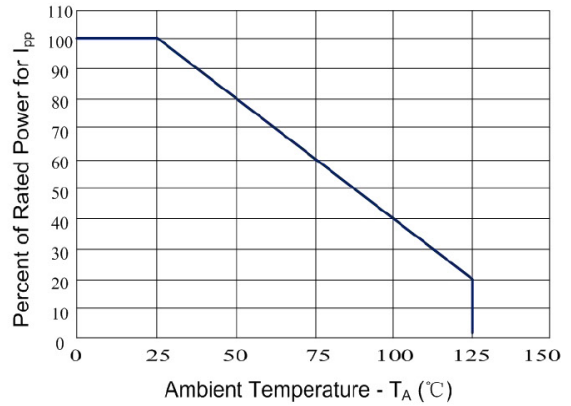


Figure 3: Pulse Waveform

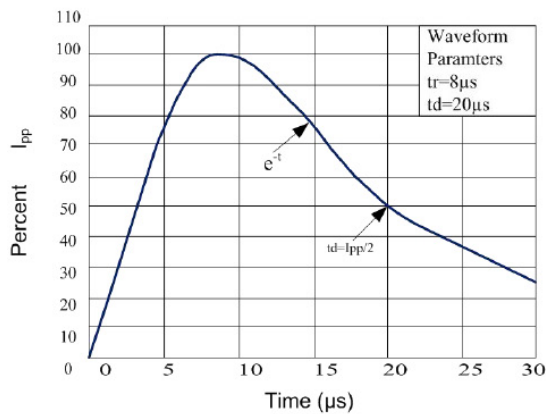


Figure 4: Clamping Voltage vs. Peak Pulse Current

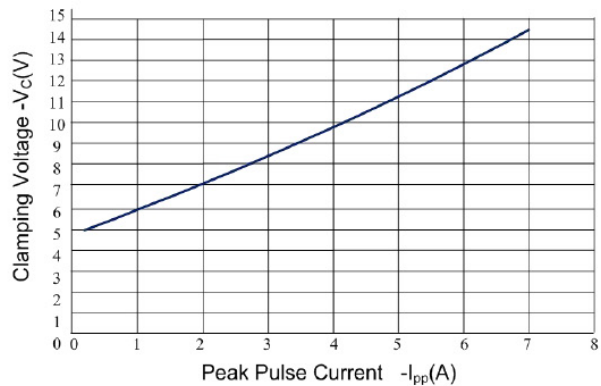


Figure 5: Capacitance vs. Reverse Voltage

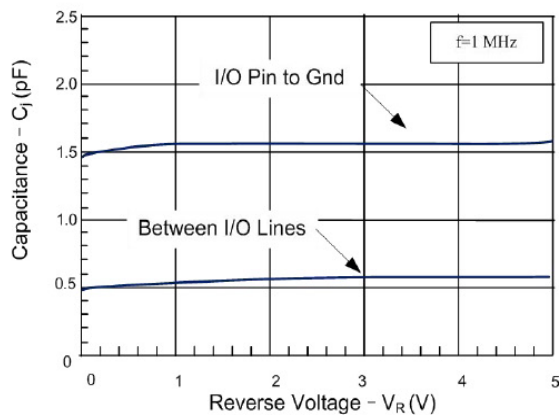
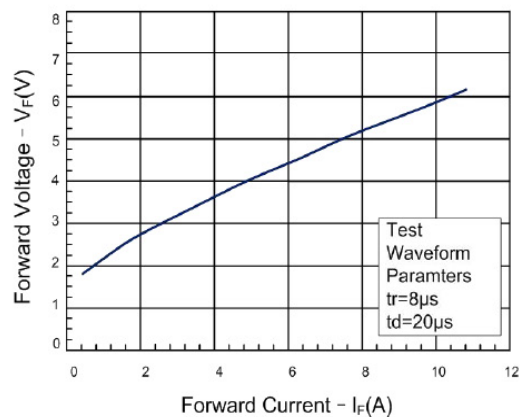
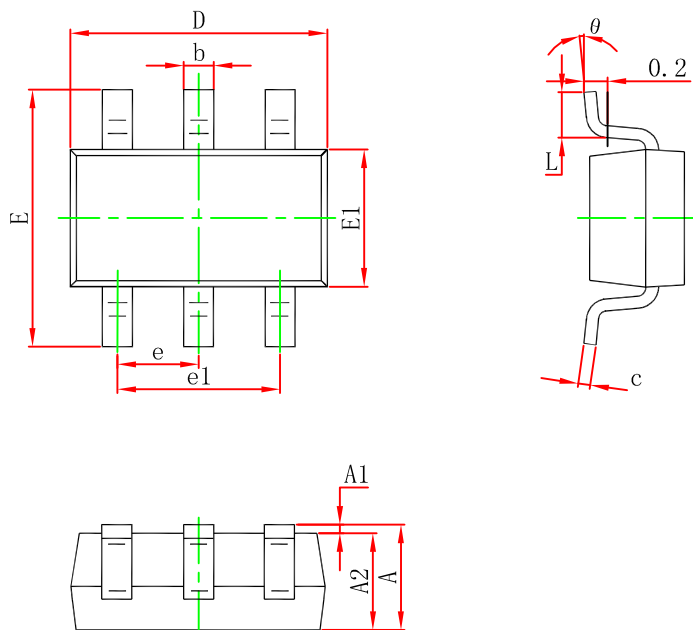


Figure 6: Forward Voltage vs. Forward Current



Package Outline Dimensions

SOT-23-6L



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°