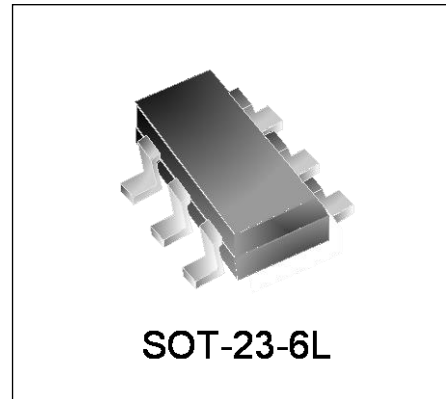


Features

- Solid-state silicon-avalanche technology
- 210 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Low operating and clamping voltage
- Up to four I/O Lines of Protection
- Low Leakage
- Low operating voltage:3.3V

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 14A (8/20 μs)



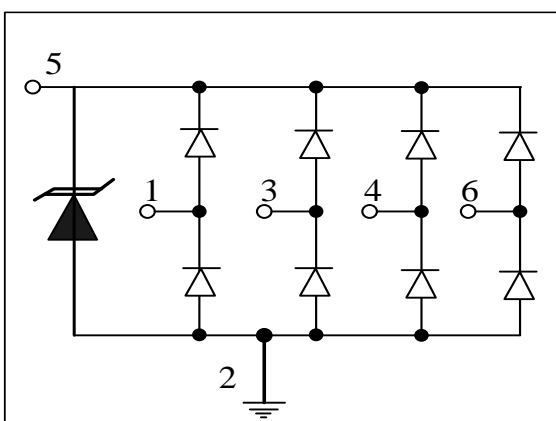
Mechanical Characteristics

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

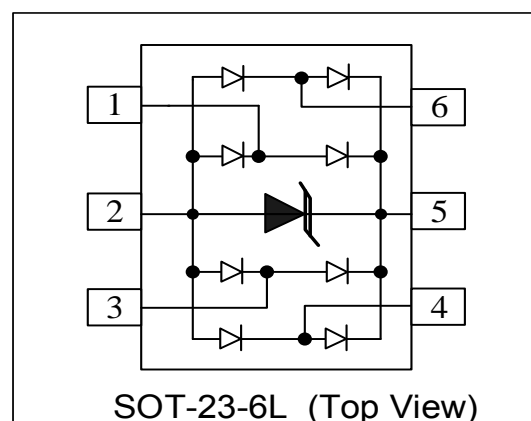
Applications

- Video/Graphics Card
- Handheld & Portable Electronics
- PC/Notebook USB2.0/IEEE1394 ports
- 10/100/1000 Ethernet
- DVI interfaces
- Wireless data (WAN/LAN) systems

Circuit Diagram



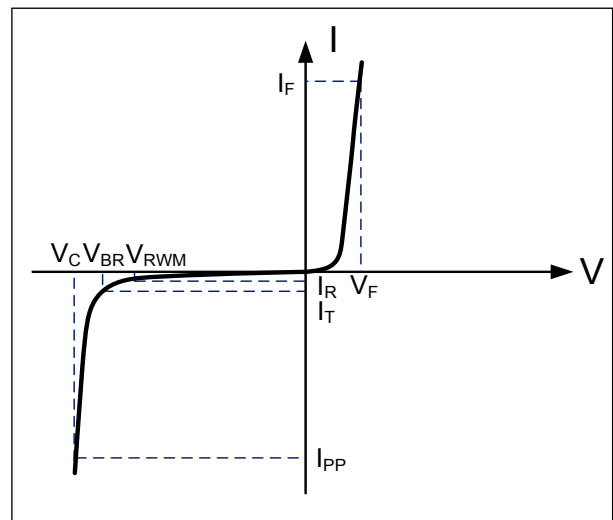
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	210	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	14	A
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +125	°C

Electrical Parameters (T=25°C)

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



Electrical Characteristics

I S03236W						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.7			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V, T = 25°C$			0.5	µA
Forward Voltage	V_F	$I_T = 1mA$			1.5	V
Clamping Voltage	V_C	$I_{PP} = 14A, t_p = 8/20\mu s$ Any I/O pin to GND		15	16	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ I/O pin to GND		1.5	2.0	pF
		$V_R = 0V, f = 1MHz$ Between I/O pins		0.75	1.0	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

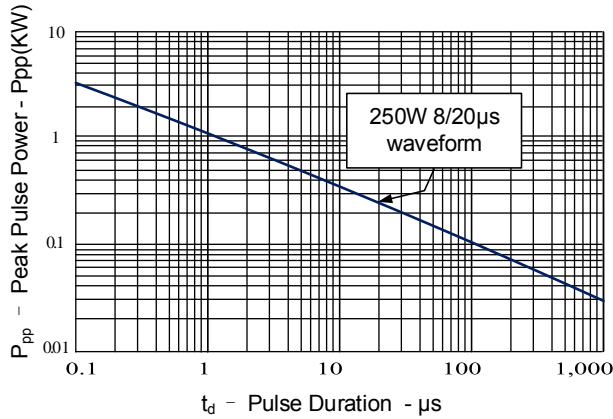


Figure 2: Power Derating Curve

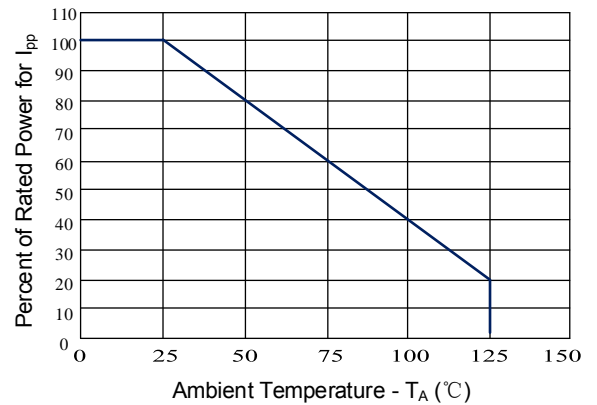


Figure 3: Pulse Waveform

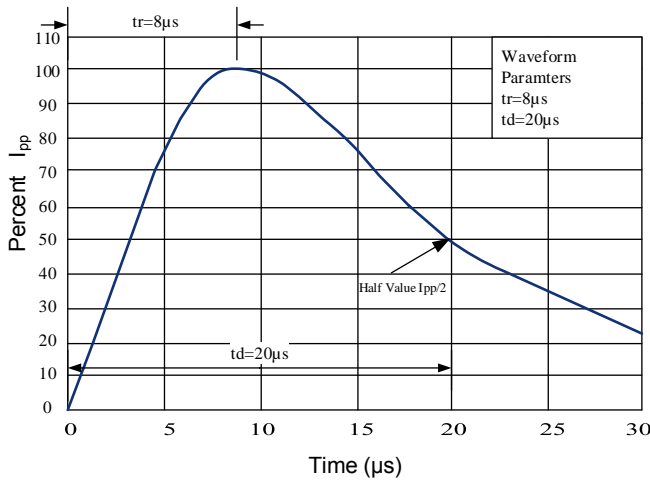


Figure 4: Clamping Voltage vs. Peak Pulse Current

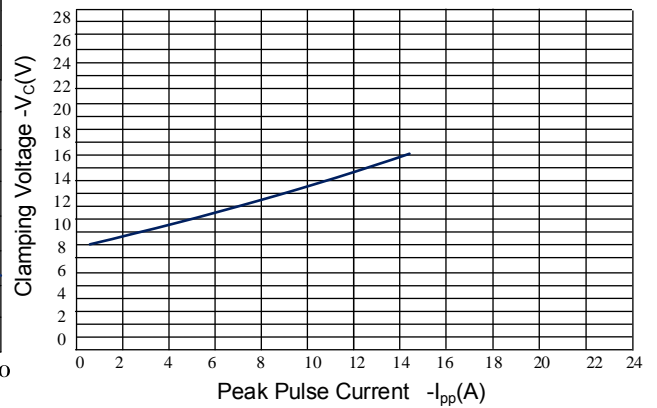
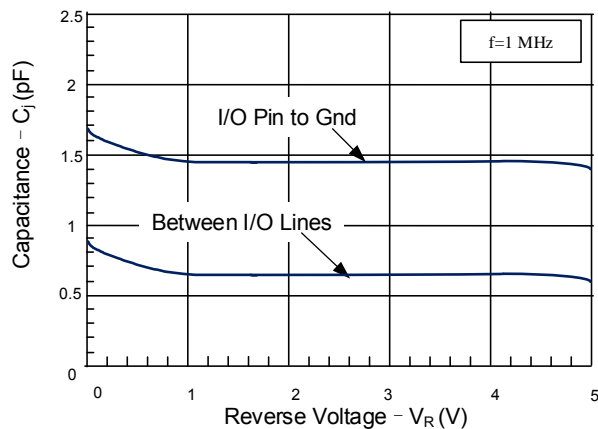


Figure 5: Capacitance vs. Reverse Voltage



US03236W Transient Voltage Suppressor

Outline Drawing – SOT-23-6L

PACKAGE OUTLINE

SIDE VIEW SEE DETAIL A

DETAIL A

SOT-23-6L

DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.057	0.90	-	1.45
A1	.000	-	.006	0.00	-	0.15
A2	.035	.045	.051	0.90	1.15	1.30
b	.010	-	.020	0.25	-	0.50
c	.003	-	.009	0.08	-	0.22
D	.110	.114	.122	2.80	2.90	3.10
E1	.060	.063	.069	1.50	1.60	1.75
E	.110BSC			2.80 BSC		
e	.037 BSC			0.95 BSC		
e1	.075BSC			1.90 BSC		
L	.012	.018	.024	0.30	0.45	0.60
L1	(.024)			(0.60)		
θ 1	0°	-	10°	0°	-	10°
N	6			6		
aaa	.004			0.10		
bbb	.008			0.20		
ccc	.008			0.20		

NOTES:

- Controlling Dimensions are In Millimeters (Angles In Degrees).
- Datums **A-1** And **B-1** To Be Determined At Datum Plane **H-1**.
- Dimensions "E1" And "D" Do Not Include Mold Flash, Protrusions Or Gate Burrs.

DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60

Notes

THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

Marking Codes

Part Number	US03236W
Marking Code	34RS

Package Information

Qty: 3k/Reel

