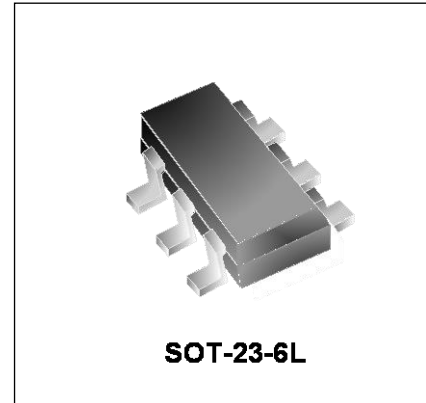


Features

- Low operating voltage: 5V
- Low capacitance
- Solid-state silicon-avalanche and active circuit triggering technology
- Back-drive protection for power-down mode
- Lead-free version available

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (air), $\pm 20\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 3A (8/20 μs)



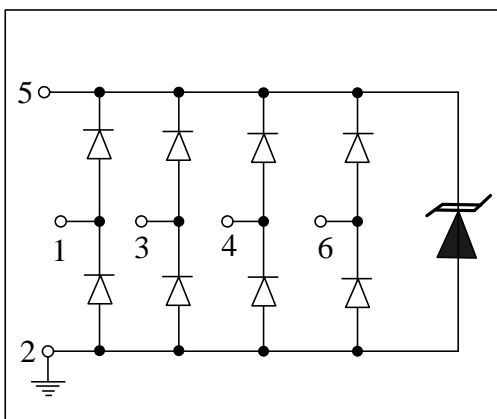
Mechanical Characteristics

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

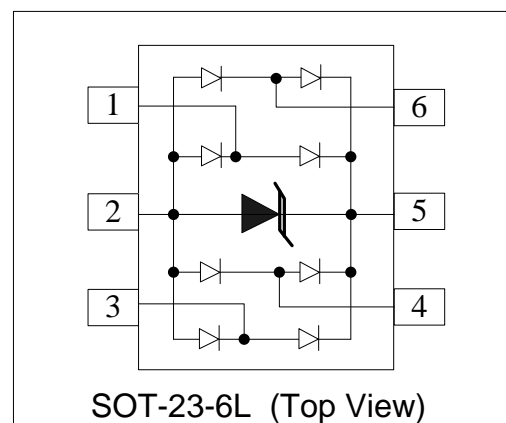
Applications

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

Circuit Diagram



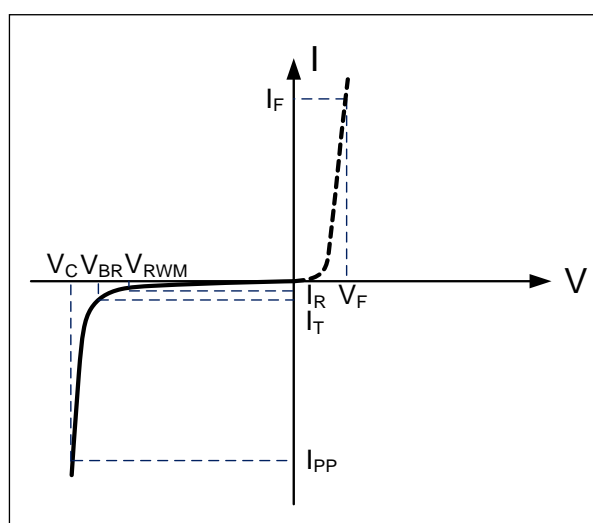
Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	70	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	3	A
Operating Temperature	T_J	-55 to + 85	°C
Storage Temperature	T_{STG}	-55 to +150	°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

SRV05-4						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}	Pin5 to pin2 T=25°C			5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$ Pin 5 to pin2	5.6			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25°C$ Pin 5 to pin2			500	nA
Forward Voltage	V_F	$I_T=15mA$		0.8	1.5	V
Clamping Voltage	V_C	$I_{PP}=3.0A, t_p=8/20\mu s$ I/O pin to GND			22	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ I/O pin to GND		2.5	3.5	pF
		$V_R = 0V, f = 1MHz$ Between I/O pins		1.0	2.0	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

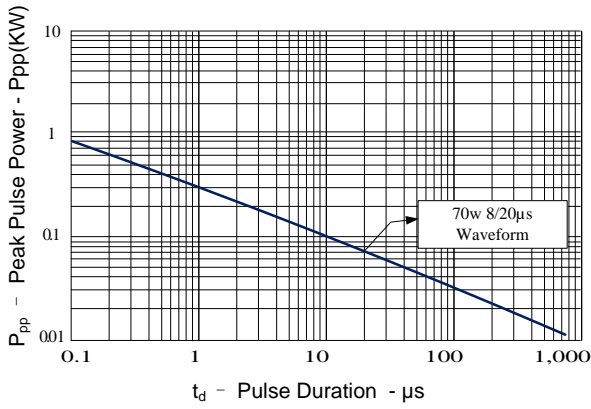


Figure 2: Power Derating Curve

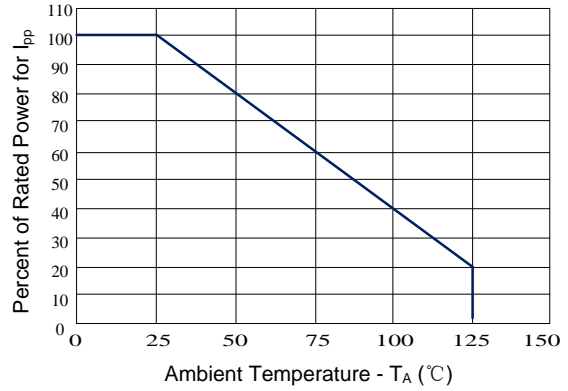


Figure 3: Pulse Waveform

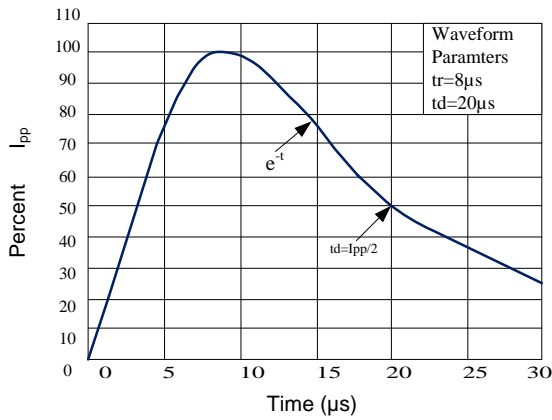


Figure 4: Clamping Voltage vs. Peak Pulse Current

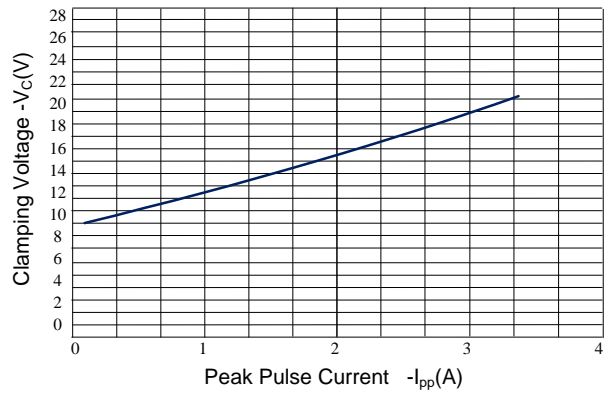


Figure 5: Capacitance vs. Reverse Voltage

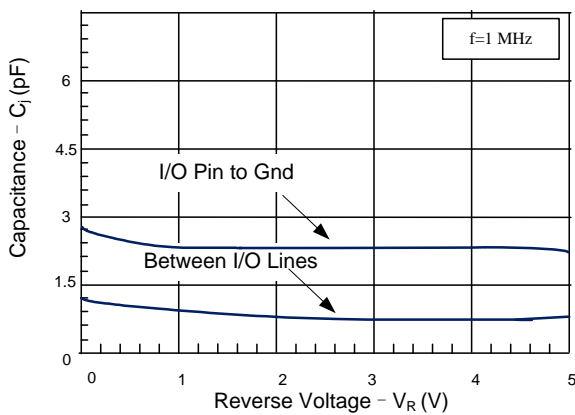
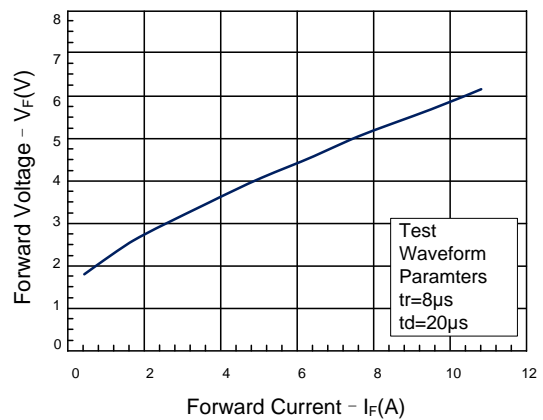


Figure 6: Forward Voltage vs. Forward Current

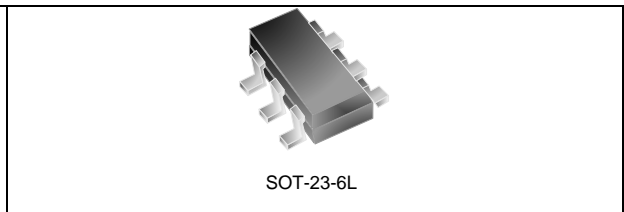


Outline Drawing – SOT-23-6L

PACKAGE OUTLINE

NOTES:

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



DIMENSIONS

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	.049	.051	0.90	1.25	1.30
b	.010	-	.020	0.35	-	0.50
c	.003	-	.007	0.08	-	0.20
D	.110	.114	.122	2.80	2.90	3.00
E1	.060	.063	.069	1.50	1.625	1.75
E	.110BSC			2.80 BSC		
e	.037 BSC			0.95 BSC		
e1	.075BSC			1.90 BSC		
L	.013	.018	.024	0.35	0.45	0.60
L1	(.024)			(0.60)		
θ 1	0°	-	8°	0°	-	8°
N	6			6		
aaa	.004			0.10		
bbb	.008			0.20		
ccc	.008			0.20		

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	SRV05-4
Marking Code	V5L

Package Information

Qty: 3k/Reel

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