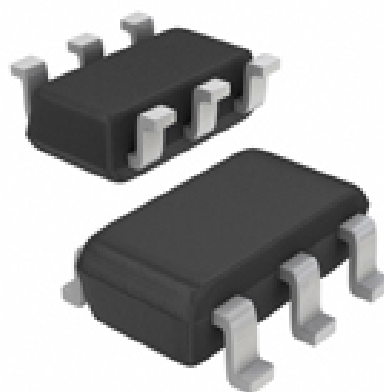




Features

- 60Watts peak pulse power ($t_p = 8/20\mu s$)
- SOT23-6 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j = 0.3pF$ typ. IO to IO)
- Protection one data/power line to:
- ESD capability according to AEC-Q101:
human body model: class H3B: $> 8 kV$
- IEC 61000-4-2 $\pm 25kV$ contact $\pm 25kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 4.0A (8/20 μs)



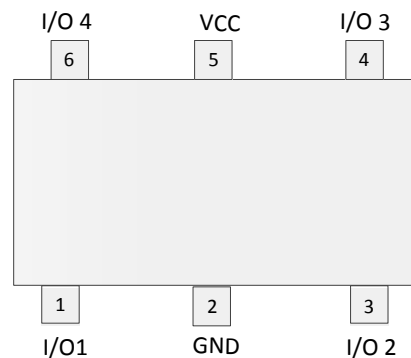
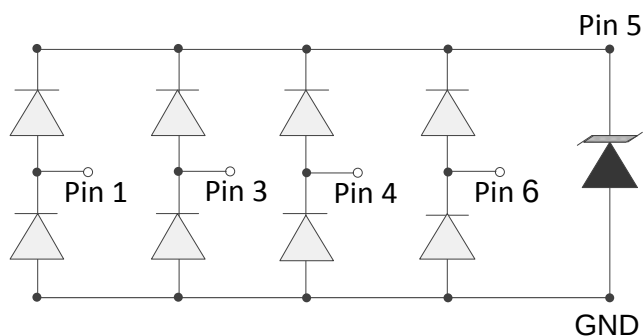
Applications

- Ethernet
- Digital Visual Interface (DVI)
- USB2.0
- Notebook and PC Computers

Mechanical Data

- SOT23-6 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



SOT23-6

Absolute Maximum Rating

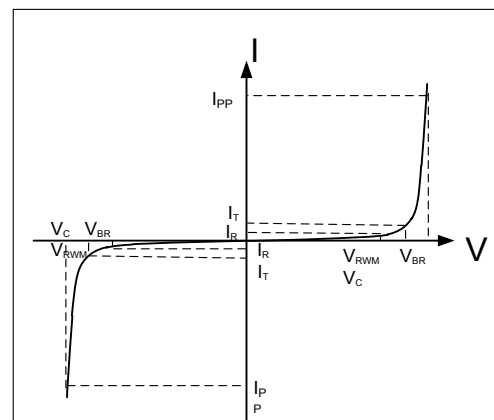
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	60	Watts
Peak Pulse Current ($t_p=8/20\mu s$) (note1)	I_{PP}	4.0	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	25 25	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
I/O port TVS						
Reverse Stand-Off Voltage	V _{RWM}				5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6	8.0		V
Reverse Leakage Current	I _R	V _{RWM} =5V, T=25°C		0.2	0.5	uA
Peak Pulse Current	I _{PP}	t _p =8/20μs			4.0	A
Clamping Voltage	V _C	I _{PP} =4.0A, t _p =8/20μs		10	15	V
Junction Capacitance	C _j	V _R = 0V, f = 1MHz I/O to I/O		0.3	0.35	pF
		V _R = 0V, f = 1MHz I/O to GND		0.6	0.7	pF
VCC TVS						
Reverse Stand-Off Voltage	V _{RWM}				5.0	V
Reverse Breakdown Voltage	V _{BR}	I _T =1mA	6.0			V
Reverse Leakage Current	I _R	V _{RWM} =5V, T=25°C			1	uA
Clamping Voltage	V _C	I _{PP} =20A, t _p =8/20μs		12	15	V
Junction Capacitance	C _j	V _R = 0V, f = 1MHz VCC to GND		160	165	pF

Electrical Parameters (TA = 25°C unless otherwise noted)

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

Note: 8/20 μs pulse waveform.

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

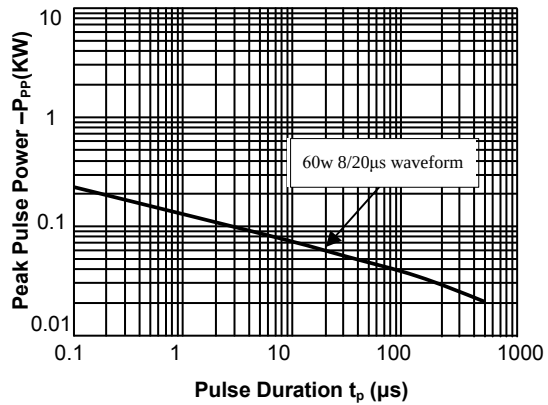


Fig.2 Pulse Derating Curve

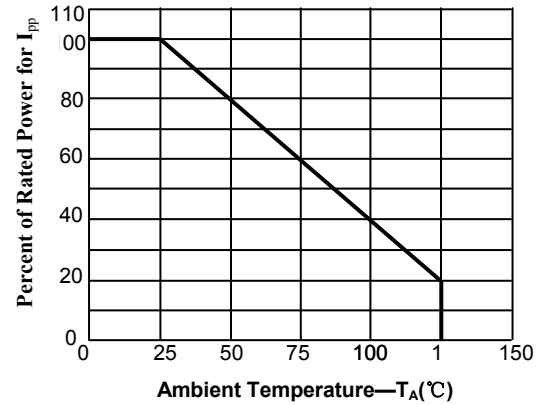


Figure3: Pulse Waveform

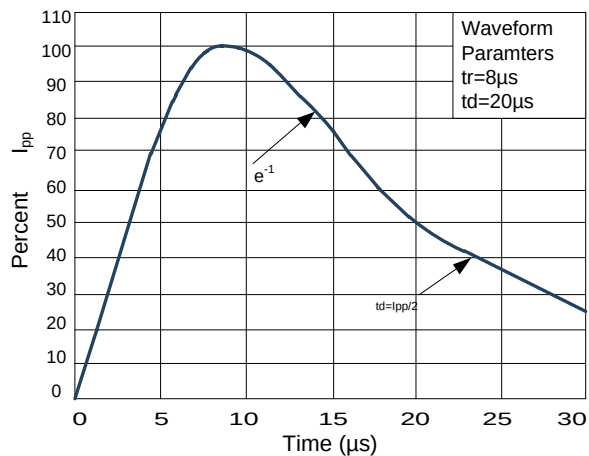
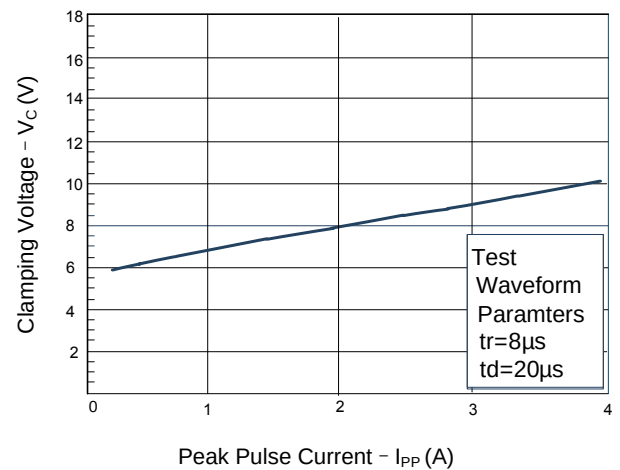
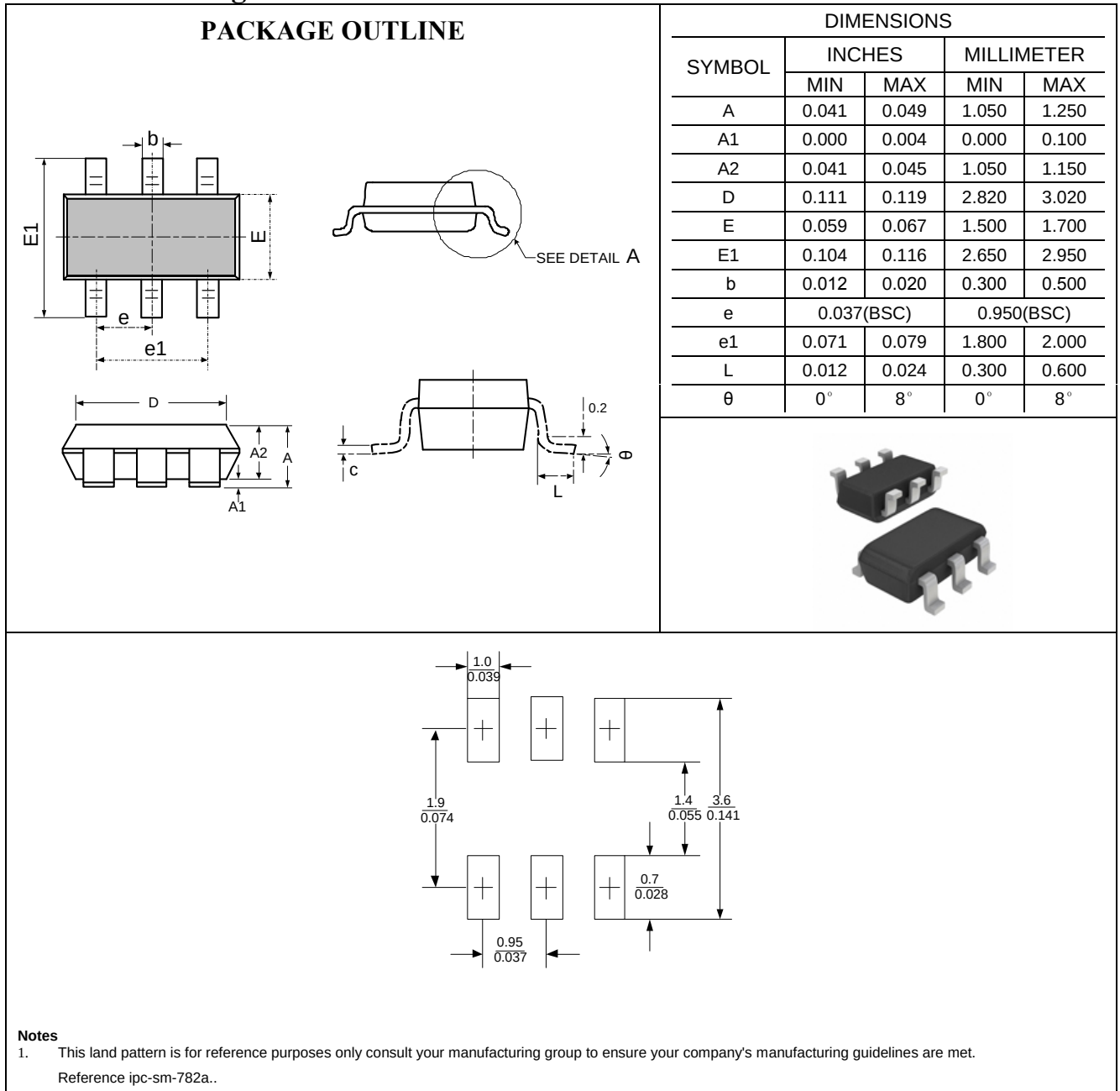


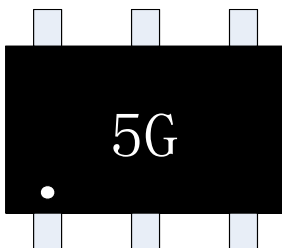
Figure 4: Clamping Voltage vs. I_{PP} (I/O to GND)



Outline Drawing – SOT23-6



Marking



Ordering information

Order code	Package	Base qty	Delivery mode
SEST23U0526PH	SOT23-6	3k	Tape and reel