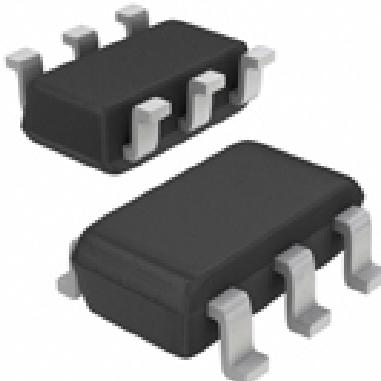


## Features

- 60Watts peak pulse power ( $tp = 8/20\mu s$ )
  - SOT23-6 package
  - Solid-state silicon-avalanche technology
  - Low clamping voltage
  - Low leakage current
  - Low capacitance ( $Cj=0.3pF$  typ. IO to IO)
  - Protection one data/power line to:
  - 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 $\mu s$ )



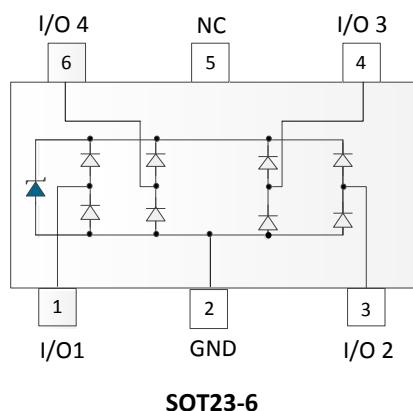
## Applications

- 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



**Absolute Maximum Rating**

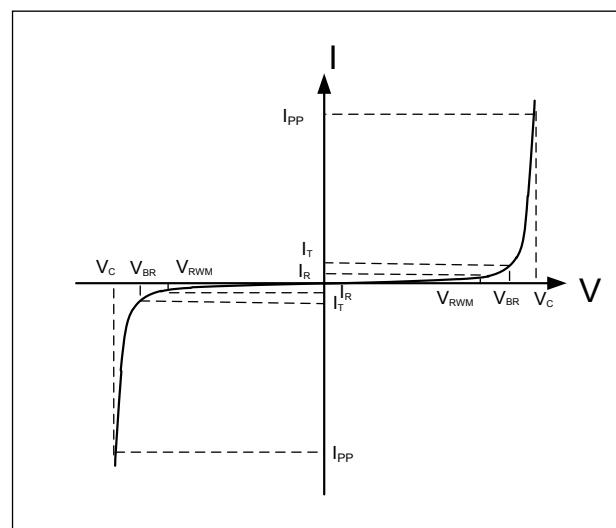
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	60	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ ) (note1)	$I_{PP}$	4.0	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	25 25	kV
Lead Soldering Temperature	$T_L$	260(10seconds)	°C
Junction Temperature	$T_J$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

**Electrical Characteristics**

Parameter	Symbol	Conditions	Min	Typical	Max	Units
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	$I_{PP}$	$t_p = 8/20\mu s$			4.0	A
Clamping Voltage	$V_C$	$I_{PP} = 4.0A, t_p = 8/20\mu s$		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

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

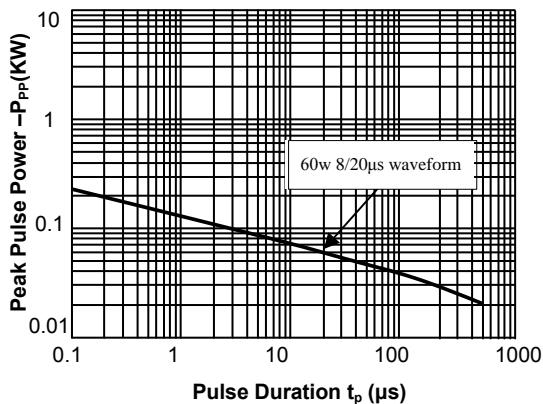
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current



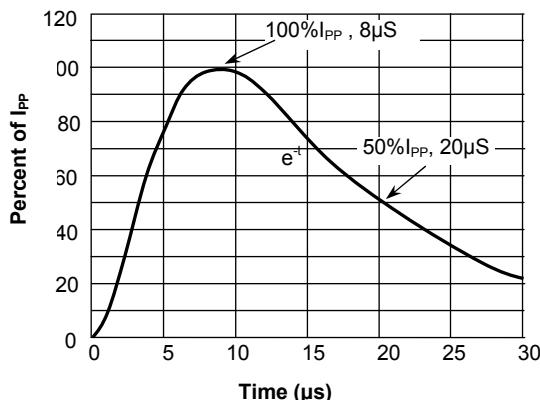
Note: 8/20μs pulse waveform.

## Typical Characteristic Curves

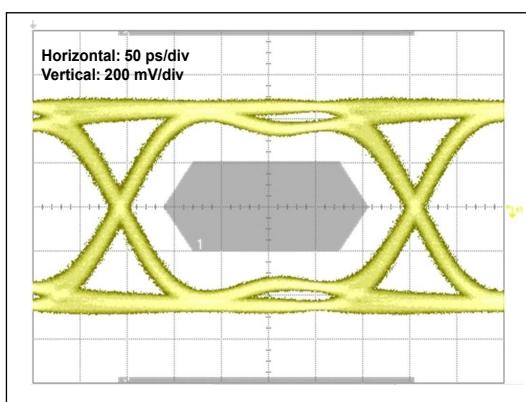
**Fig.1 Peak Pulse Power Rating Curve**



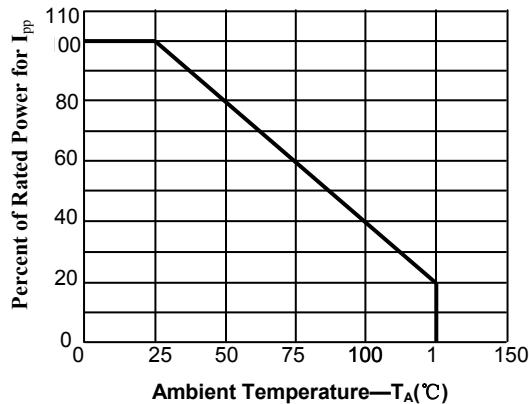
**Fig.3 Pulse Waveform-8/20μs**



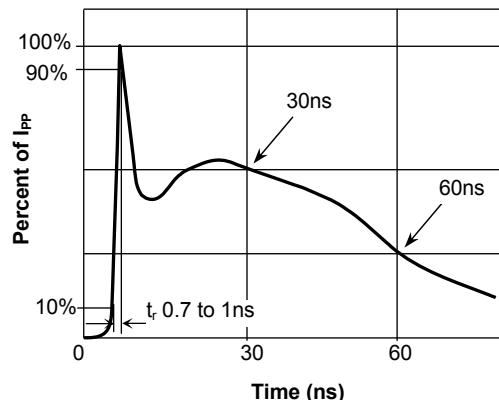
**Fig.5 Eye Diagram - HDMI mask at 5.0Gbps per channel**



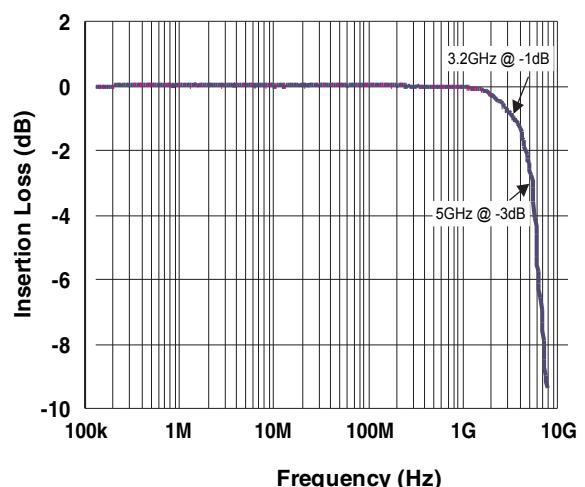
**Fig.2 Pulse Derating Curve**



**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**

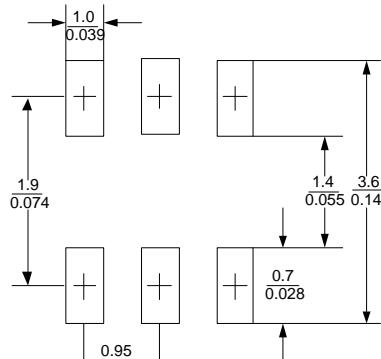


**Fig.6 Insertion Loss S21 - I/O to GND**



## Outline Drawing – SOT23-6

PACKAGE OUTLINE		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°	

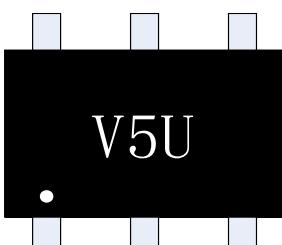



**Notes**

- This land pattern is for reference purposes only consult your manufacturing group to ensure your company's manufacturing guidelines are met.

Reference ipc-sm-782a..

## Marking



## Ordering information

Order code	Package	Base qty	Delivery mode
SEST23U0526PC	SOT23-6	3k	Tape and reel