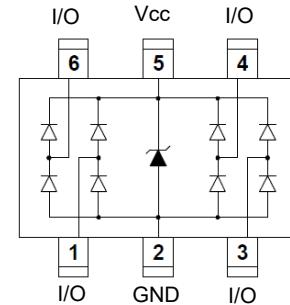
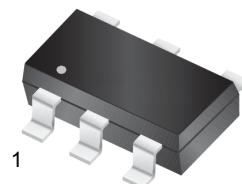


Low Capacitance ESD TVS Array in SOT23-6

Features

- 350Watts peak pulse power ($t_p = 8/20\mu s$)
- SOT23-6 Package
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (1.5pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
IEC 61000-4-2 ±30KV contact ±30KV air
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 24A (8/20μs)



Mechanical Data

- **Case:** SOT23-6 (plastic package).
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- USB 2.0, MHL
- Ethernet
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- Notebook and PC Computers

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

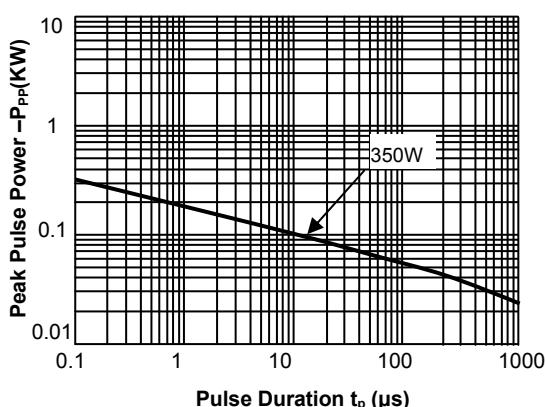
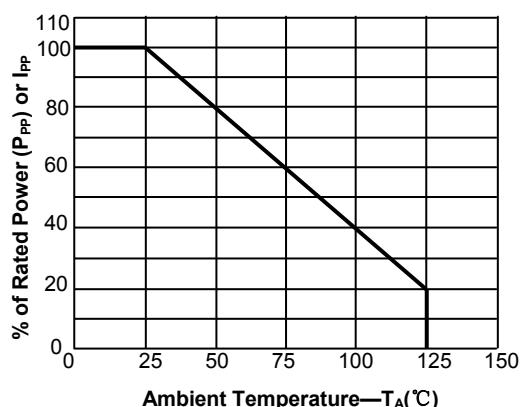
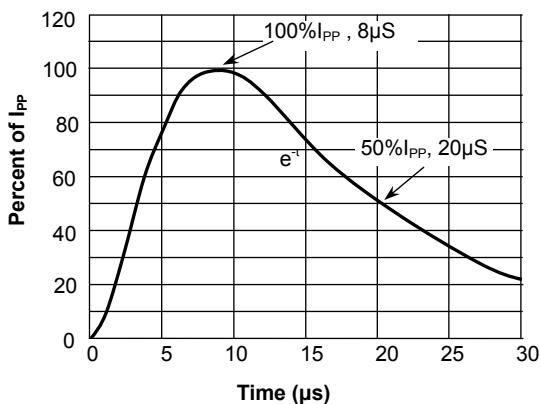
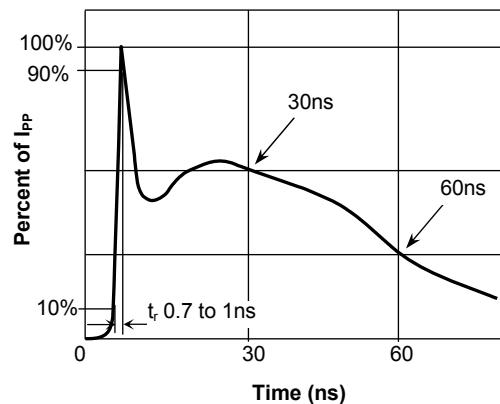
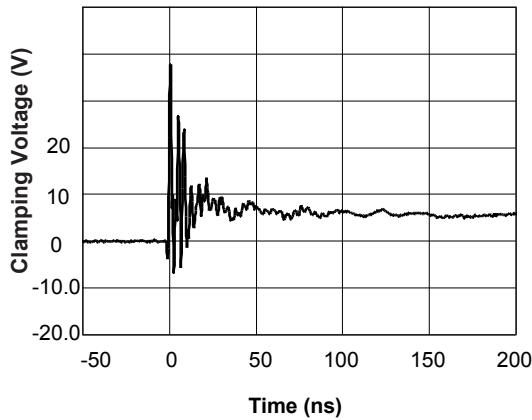
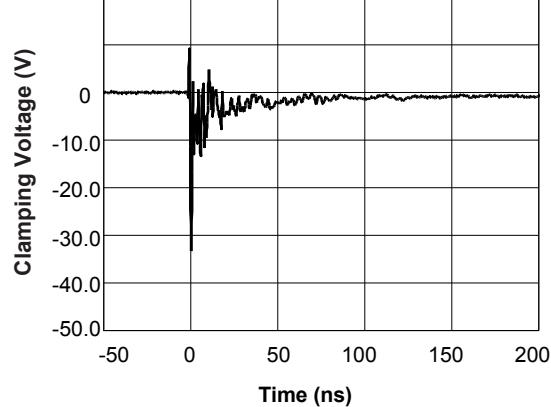
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_p=8/20\mu s$)	P_{PP}	350	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30/30	kV
Peak Pulse Current ($T_p = 8/20\mu s$)	I_{PP}	24	A
Junction Temperature	T_J	-55 to +150	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

($T_A = 25$ °C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6	7.0	9.0	V
Reverse Leakage Current	I_R	$V_R=5V$		0.1	0.5	μA
Clamping Voltage(SURGE)	V_C	$I_{PP}=24A, T_p=8/20\mu s$		17		V
Clamping Voltage(ESD)	V_C	$V_{ESD} = +8kV$		15		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz, I/O to I/O$		1.5	2.5	pF
	C_J	$V_R=0V, f=1MHz, I/O to GND$		3.5	5.0	pF

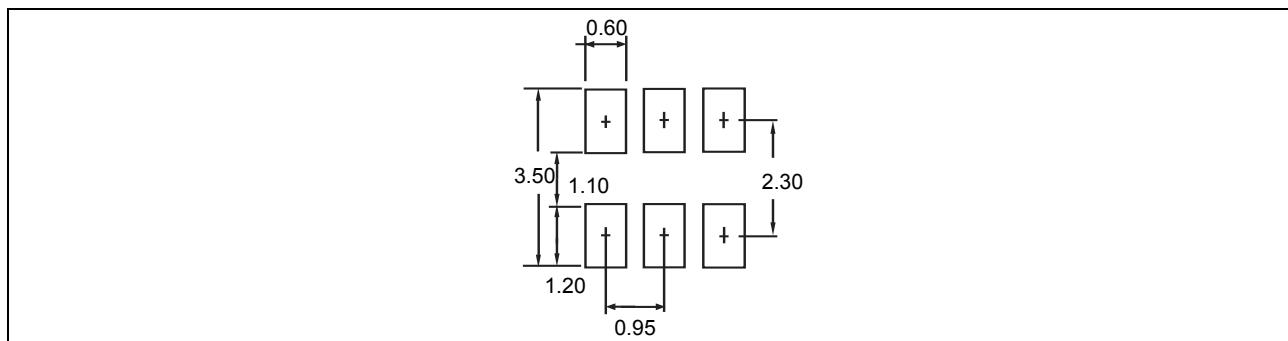
Typical Characteristics ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

Fig.2 Pulse Derating Curve

Fig.3 Pulse Waveform-8/20 μs

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

Fig.5 ESD Clamping of I/O to GND (+8kV Contact per IEC 61000-4-2)

Fig.6 Fig.5 ESD Clamping of I/O to GND (-8kV Contact per IEC 61000-4-2)


Package Dimensions

Symbol	Dimensions in millimeters	
	Min	Max
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.300	0.500
c	0.100	0.200
D	2.820	3.020
E1	1.500	1.700
E	2.650	2.950
e	0.950(BSC)	
e1	1.800	2.000
L	0.300	0.600
θ	0°	8°

Pad dimensions



Package information

Pkg type	a	B	C	d	E	F	P0	P	P1	W
Dimensions are in millimeter										
SOT-23-6	3.17	3.23	1.37	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
TEST236LC5VUH	S514P	SOT23-6	Tape and reel	3000pcs / reel	EIA STD RS-481