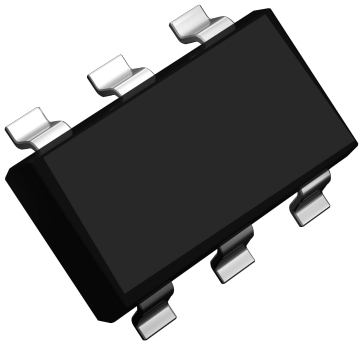
STEIFPOWER TECHNOLOGY

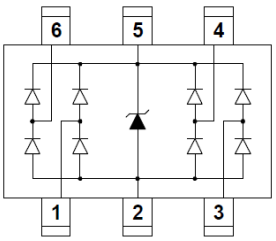
SPES3V3T236-6U
Low Capacitance ESD TVS Array

Features

- 120 Watts peak pulse power (tp = 8/20μs)
- SOT-23-6L package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (0.7pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  IEC 61000-4-2 ±15KV contact ±8KV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 7A (8/20μs)
- RoHS compliant



Package: SOT-23-6L



Schematic Diagram

Applications

- Video lines protection
- 100/1000M Ethernet protection
- Fingerprint sensor
- Other LAN application
- Other 3.3V application

Absolute Maximum Ratings

(T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	120	W
Peak Pulse Current (t_P = 8/20μS)	I_{PP}	7	A
Junction Temperature	T_J	-55 to +125	°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}	-		-	3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	4.0	-	-	V
Reverse Leakage Current	I_R	V_R=3.3V	-	-	1	μA
Clamping Voltage	V_C	I_{PP}=7A，T_P=8/20μS	-	11	13.5	V
Junction Capacitance	C_J	V_R=0V,f=1MHz, I/O to I/O	-	0.7	-	pF
	C_J	V_R=0V,f=1MHz, I/O to GND	-	1.5	-	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

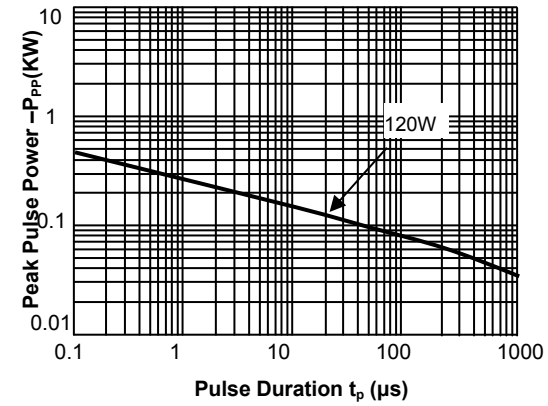


Fig.2 Pulse Derating Curve

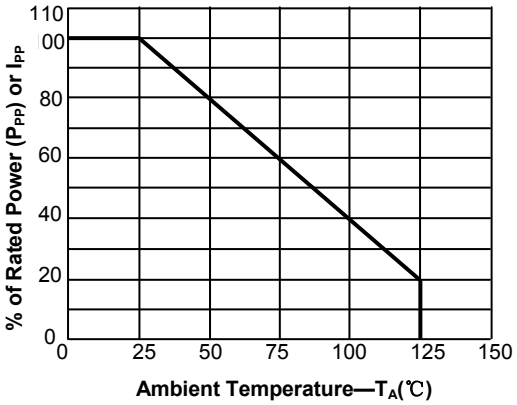


Fig.3 Pulse Waveform-8/20μs

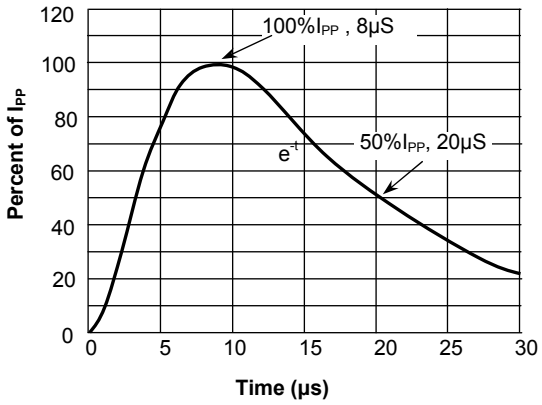
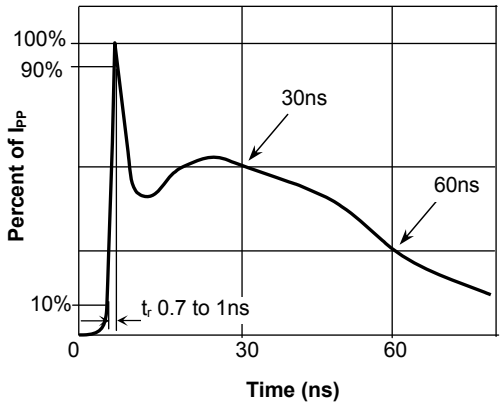
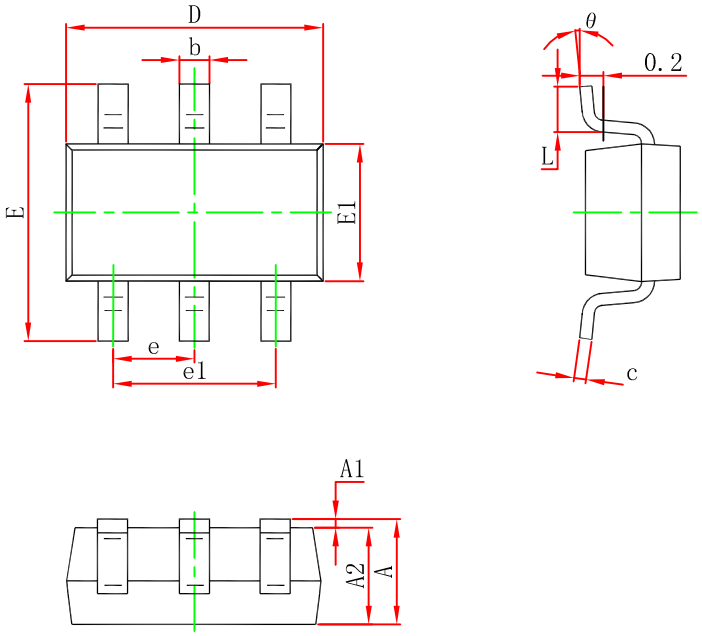


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Product Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°