

## Features

- \* 150W peak pulse power (8/20 $\mu$ s)
- \* Protects one data or power line
- \* Operating voltage: 5V
- \* Ultra low clamping voltage
- \* Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30$ kV
    - Contact discharge:  $\pm 30$ kV
  - IEC61000-4-5 (SURGE) 10A (8/20 $\mu$ s)

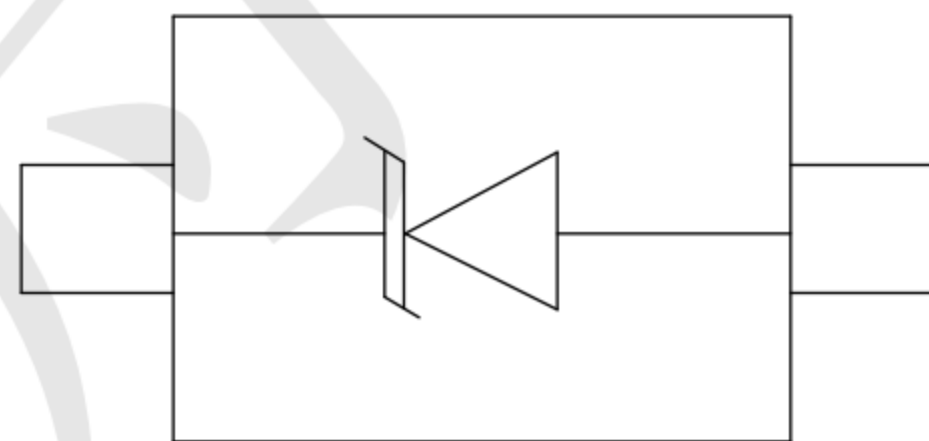
## Mechanical Characteristics

- \* Package: SOD-723
- \* Ultra low leakage: nA level
- \* Case Material: "Green" Molding Compound.
- \* UL Flammability Classification Rating 94V-0
- \* Moisture Sensitivity: Level 3 per J-STD-020
- \* Shipping Qty :8000 /7Inch Tape & Reel

## Applications

- \* Computers and peripherals
- \* Audio and video equipment
- \* Cellular handsets and accessories
- \* Portable electronics

## Dimensions and Pin Configuration



**SOD723**

**Marking:E2**

**Absolute Maximum Ratings** (Tamb=25°C unless otherwise specified)

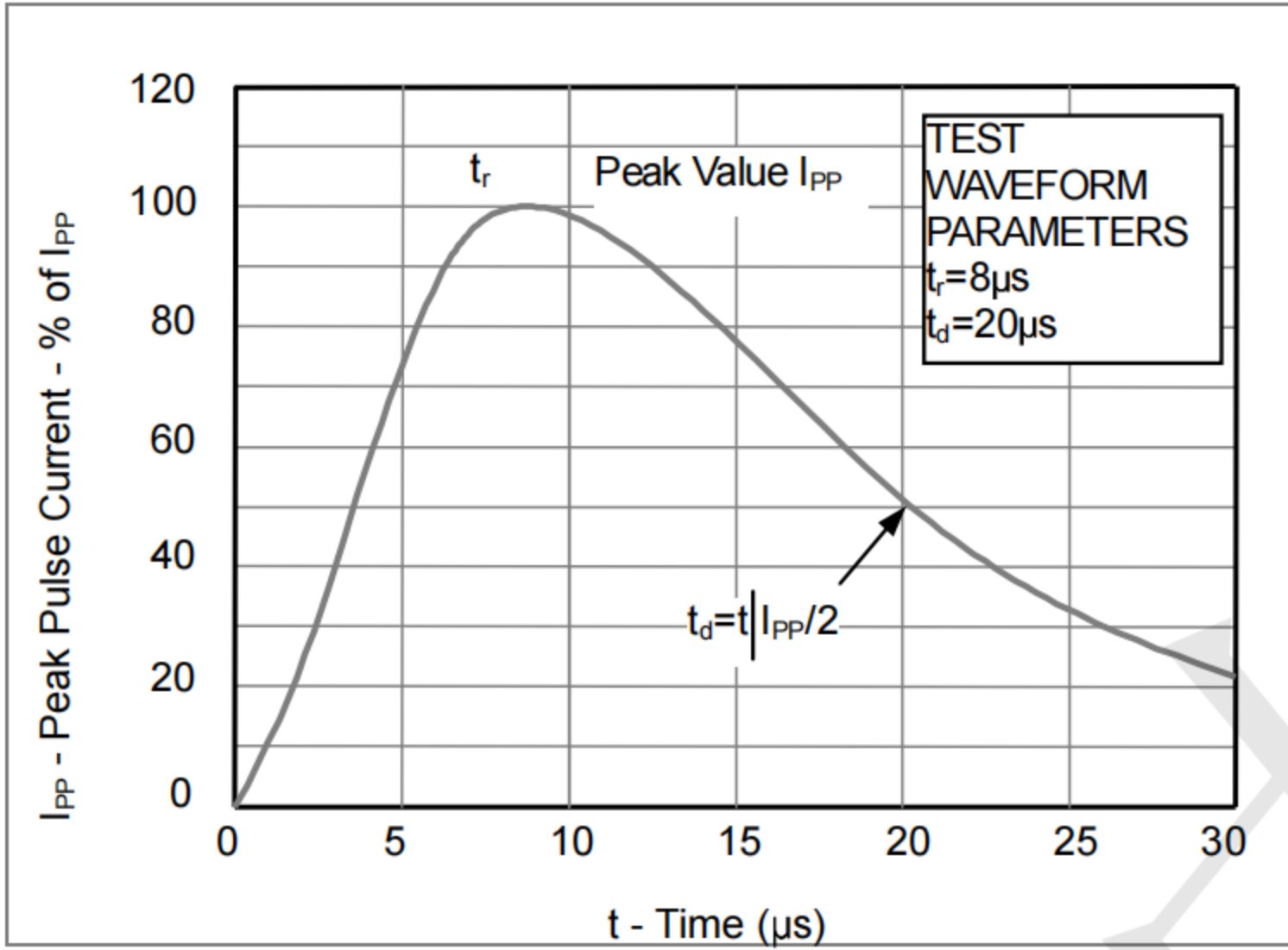
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	150	W
Peak Pulse Current (8/20μs)	IPP	10	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

**Electrical Characteristics** (TA=25°C unless otherwise specified)

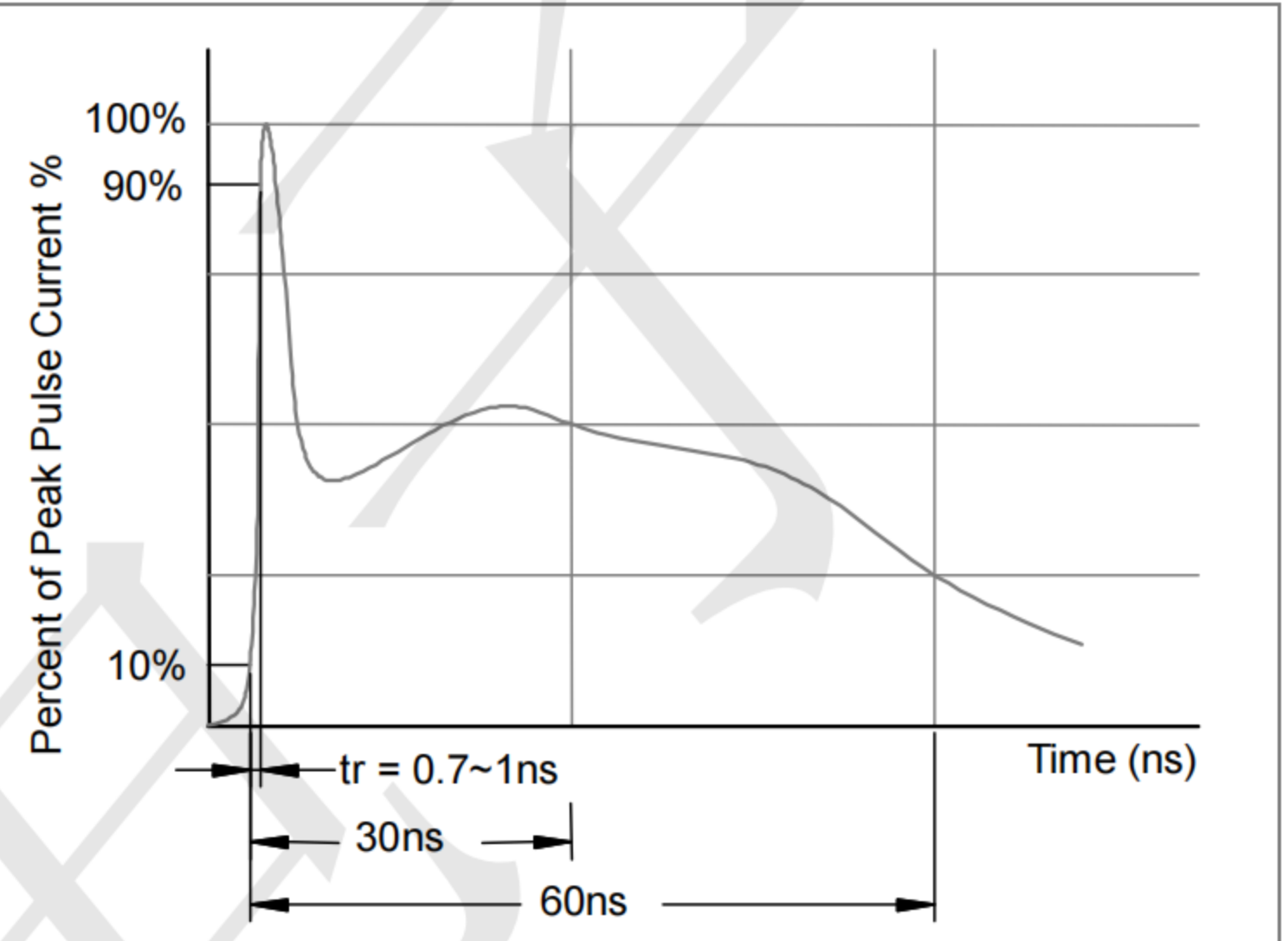
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V <sub>RWM</sub>				5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> = 1mA(Pin1-Pin2)	6			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 5.0V(Pin2-Pin1)			0.2	μA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A (8 x 20us pulse) (Pin1-Pin2)			8	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 10A (8 x 20us pulse) (Pin1-Pin2)			15	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz			90	pF

## Characteristic Curves

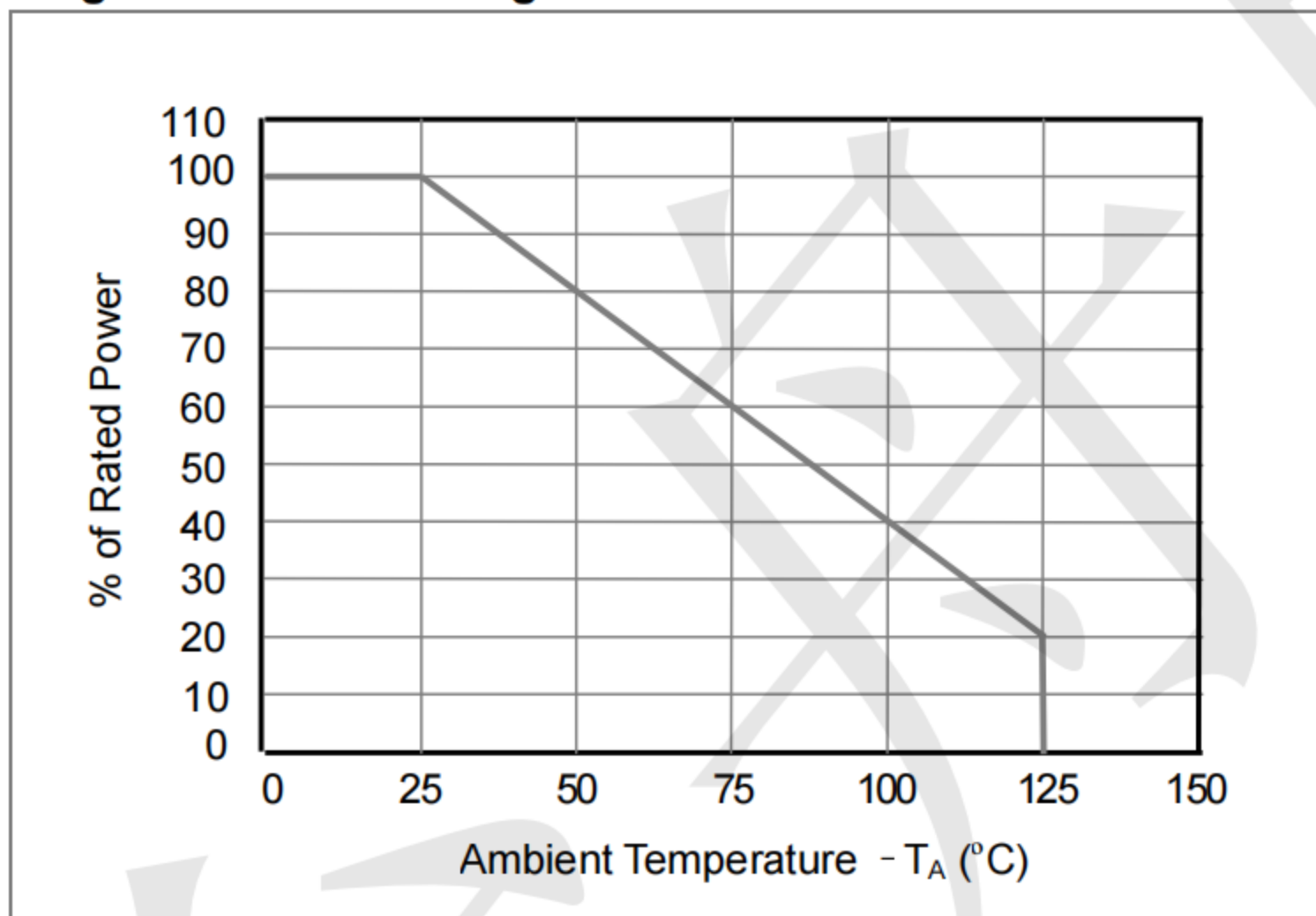
**Fig1. 8/20 $\mu$ s Pulse Waveform**



**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**





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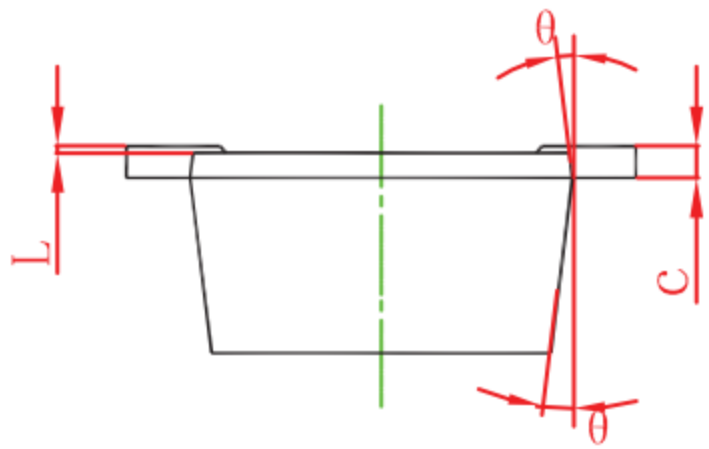
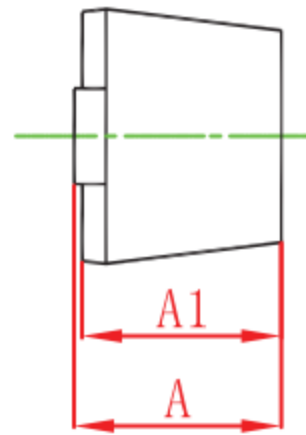
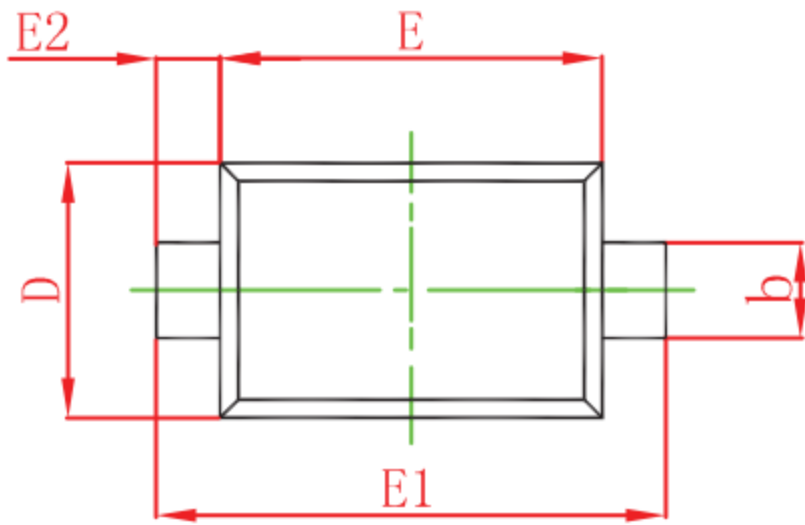
—台丹电子—

**SP1003-01DTG**

1-Line Uni-directional TVS Diode

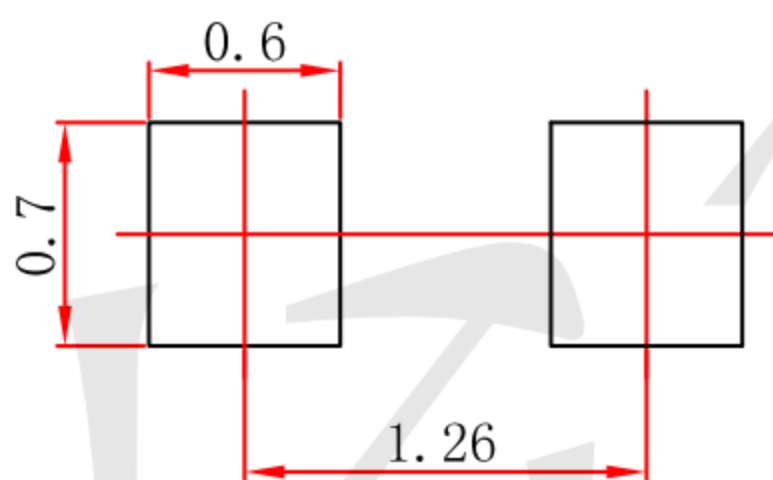
[www.sot23.com.tw](http://www.sot23.com.tw)

### Outline Drawing - SOD-723 (unit: mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.525	0.650	0.021	0.026
A1	0.515	0.580	0.020	0.023
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.550	0.650	0.022	0.026
E	0.900	1.100	0.035	0.043
E1	1.300	1.500	0.051	0.059
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

### Mounting Pad Layout-SOD723 (unit: mm)



Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.

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