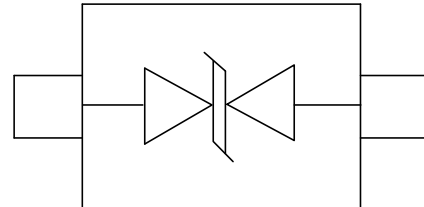


Features

- Low operating voltage : $\pm 3.3V$
- Ultra low capacitance : 15pf typical
- Ultra low leakage : nA level
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards
- -IEC 61000-4-2 (ESD) immunity test
Air discharge : $\pm 30kV$
Contact discharge : $\pm 30kV$
- -IEC61000-4-5 (Lightning) 9A (8 / 20us)
- These are Pb-free Devices
- Response Time is Typically < 1ns



Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals

Mechanical Characteristics

- Package : SOD-523
- Lead Finish : Matte Tin
- Case Material : Green Molding Compound
- Moisture Sensitivity : Level 3 per J-STD-020

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	100	W
Peak Pulse Current (8/20µs)	Ipp	9	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	kV
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	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			3.3	V	
Breakdown Voltage	VBR	4			V	IT = 1mA
Reverse Leakage Current	IR			0.07	uA	VRWM = 3.3V
Clamping Voltage	VC		7.5		V	Ipp=1A(8x 20us pulse)
Clamping Voltage	VC			13	V	Ipp=9A(8x 20us pulse)
Junction Capacitance	CJ		15		pF	VR = 0V, f = 1MHz

Typical Performance Characteristics (TA = 25 °C unless otherwise Specified)

Fig1. 8/20µs Pulse Waveform

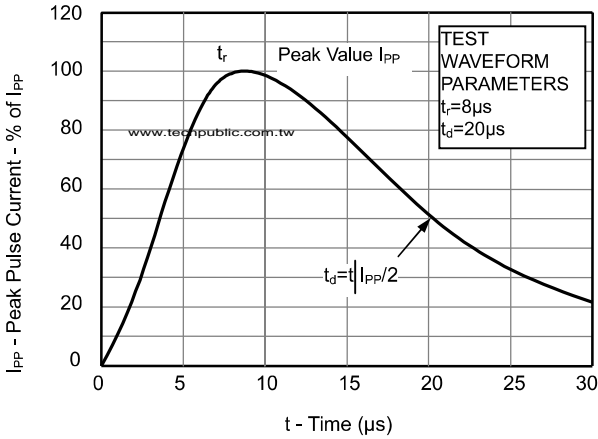


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

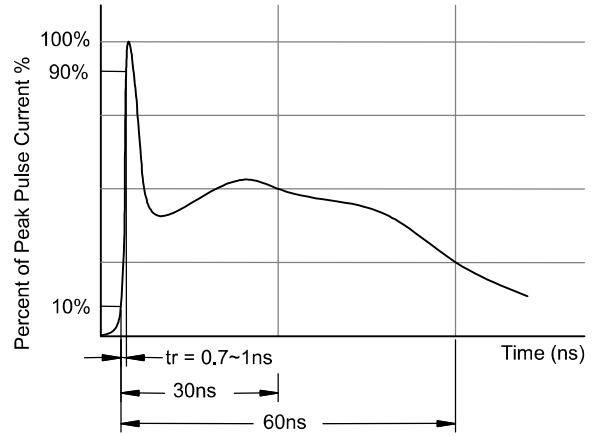
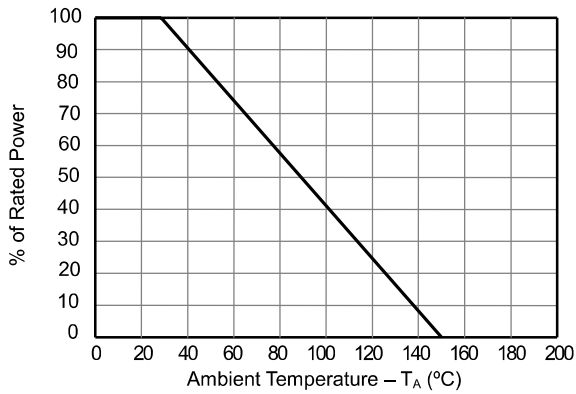
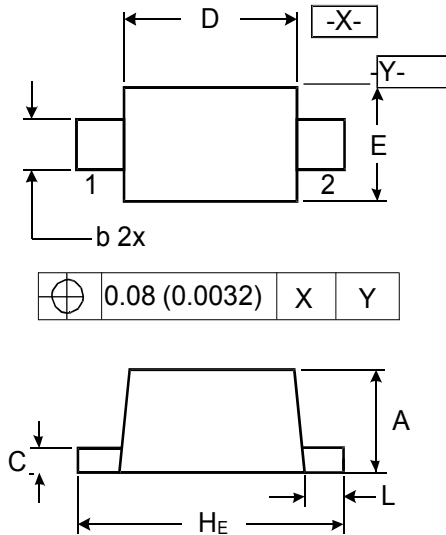


Fig3. Power Derating Curve



Package outline dimensions
SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking

Ordering information

Order code	Package	Base qty	Delivery mode
UMW ESD5491S	SOD-523	3000	Tape and reel

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