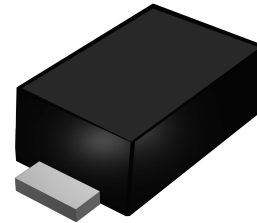


## Features

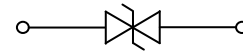
- 50 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-923 package
- Bidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 30KV$  contact  $\pm 30KV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 5A (8/20 $\mu s$ )
- RoHS compliant



SOD-923

## Applications

- Cell Phone
- PDA
- Notebook
- Digital Cameras
- Portable Instrumentation
- Audio and video equipment



Schematic Diagram

## Absolute Maximum Ratings

( $T_A=25^\circ C$  unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P=8/20\mu S$ )	$P_{PP}$	50	W
Peak Pulse Current ( $t_P = 8/20\mu S$ )	$I_{PP}$	5	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$

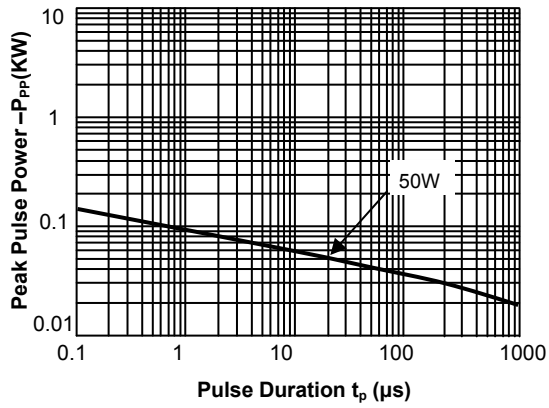
## Electrical Characteristics

( $T_A=25^\circ C$  unless otherwise specified)

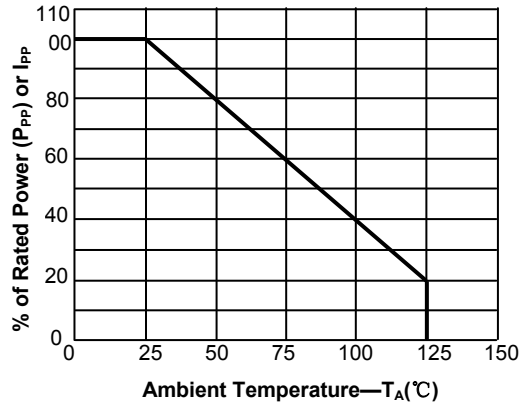
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$		-	-	3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	5	-	-	V
Reverse Leakage Current	$I_R$	$V_R=3.3V$	-	-	1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=5A, T_P=8/20\mu S$	-	8.4	10	A
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$	-	15	-	pF

## Typical Characteristic Curves

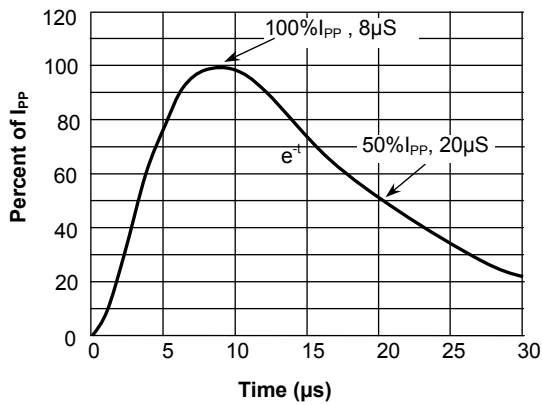
**Fig.1 Peak Pulse Power Rating Curve**



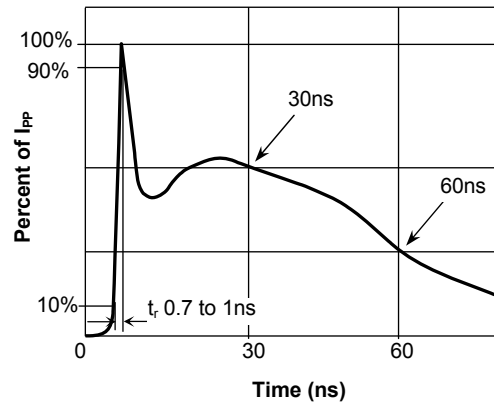
**Fig.2 Pulse Derating Curve**



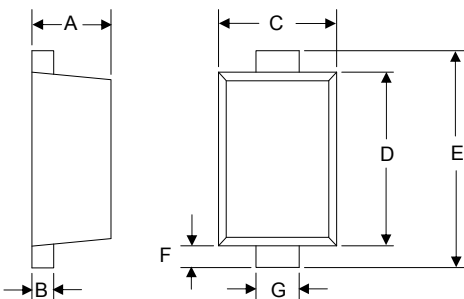
**Fig.3 Pulse Waveform-8/20 $\mu s$**



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



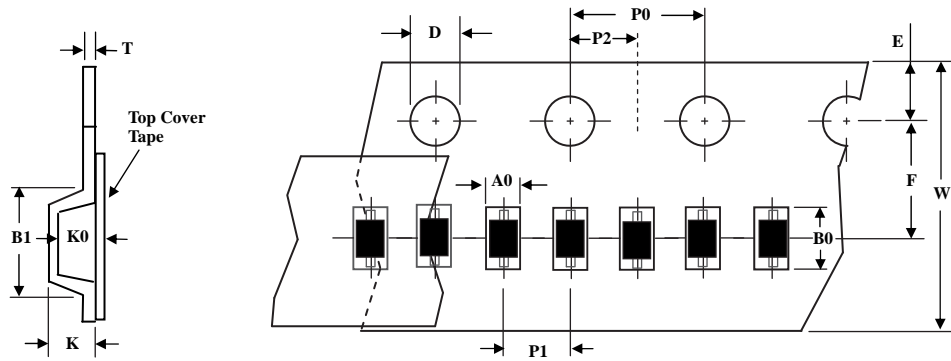
## Product Dimensions



### SOD-923

Dim	millimeters	
	min	max
A	0.34	0.40
B	0.07	0.17
C	0.55	0.65
D	0.75	0.85
E	0.95	1.05
F	0.05	0.15
G	0.15	0.25

### Package Informations



TapeSize(W)	B1 max	D	E	F	K max	P0	P1	P2	T max	W max
8	4.55	1.55±0.05	1.75±0.1	3.5±0.05	2.4	4.0±0.1	2.0±0.05	2.0±0.05	0.6	8.3

Note:1.Unit : mm

2. A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05mm min to 0.50 mm max. The component cannot rotate more than 10° within the determined cavity.

### Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
SPESP3V3D923-2B	SOD-923	3B	Tape & Reel	8000pcs / Reel	RoHS compliant