

## Features

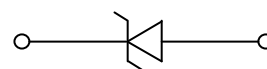
- 100 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Tiny SOD-923 package
- Unidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- ESD-immunity acc. IEC 61000-4-2 Level 4  
 $\pm 8KV$  contact ,  $\pm 15KV$  air
- RoHS compliant



**SOD-923**

## Applications

- Cell Phone Handsets and Accessories
- MP3 player
- Portable Instrumentation
- Cordless Phones
- Digital Cameras



**Schematic Diagram**

## Absolute Maximum Ratings

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

| Parameter                                | Symbol    | Value       | Unit       |
|------------------------------------------|-----------|-------------|------------|
| Peak Pulse Power ( $T_P=8/20\mu S$ )     | $P_{PP}$  | 100         | W          |
| Peak Pulse Current ( $t_p = 8/20\mu S$ ) | $I_{PP}$  | 8.7         | A          |
| Junction Temperature                     | $T_J$     | -55 to +125 | $^\circ C$ |
| Storage temperature                      | $T_{STG}$ | -55 to +150 | $^\circ C$ |

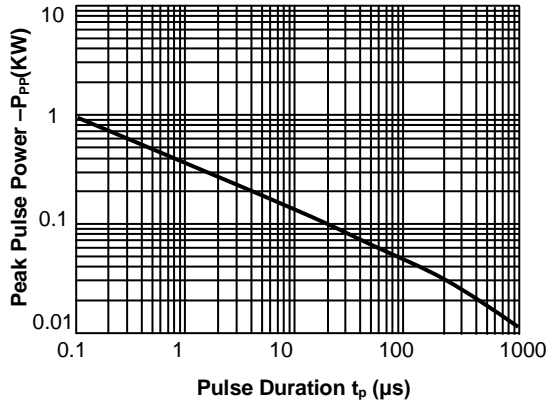
## Electrical Characteristics

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

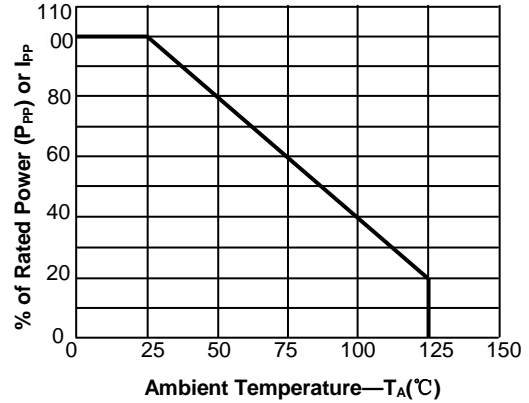
| Parameter                 | Symbol    | Condition                    | Min | Typ  | Max | Unit    |
|---------------------------|-----------|------------------------------|-----|------|-----|---------|
| Reverse stand-off Voltage | $V_{RWM}$ | -                            | -   | -    | 5   | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_T=1mA$                    | 6   | -    | 7.5 | V       |
| Reverse Leakage Current   | $I_R$     | $V_R=5V$                     | -   | -    | 1   | $\mu A$ |
| Clamping Voltage          | $V_C$     | $I_{PP}=8.7A, T_P=8/20\mu S$ | -   | 12.3 | -   | V       |
| Junction Capacitance      | $C_J$     | $V_R=0V, f=1MHz$             | -   | 65   | -   | pF      |

## Typical Characteristic Curves

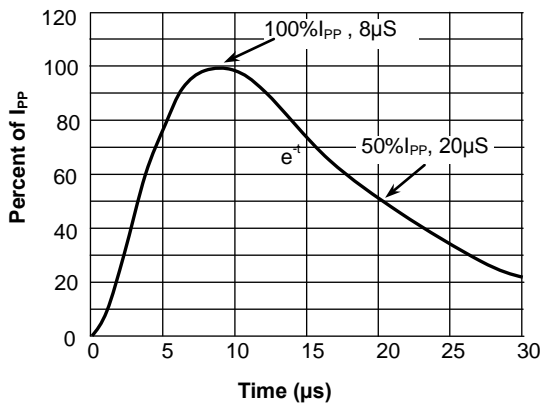
**Fig.1 Peak Pulse Power Rating Curve**



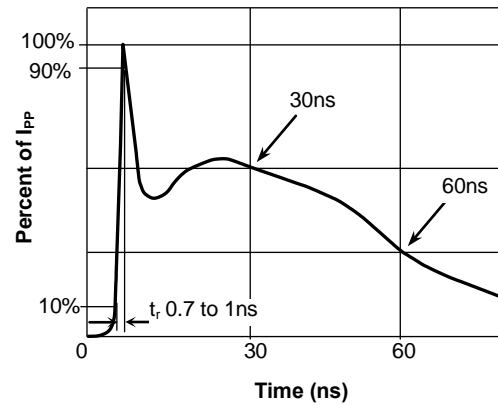
**Fig.2 Pulse Derating Curve**



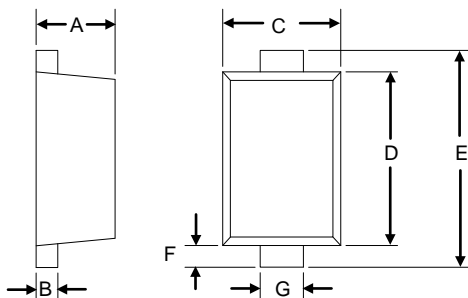
**Fig.3 Pulse Waveform-8/20μs**



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



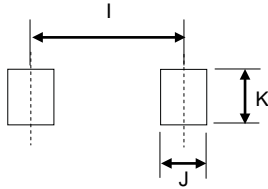
## Product Dimensions



### SOD-923

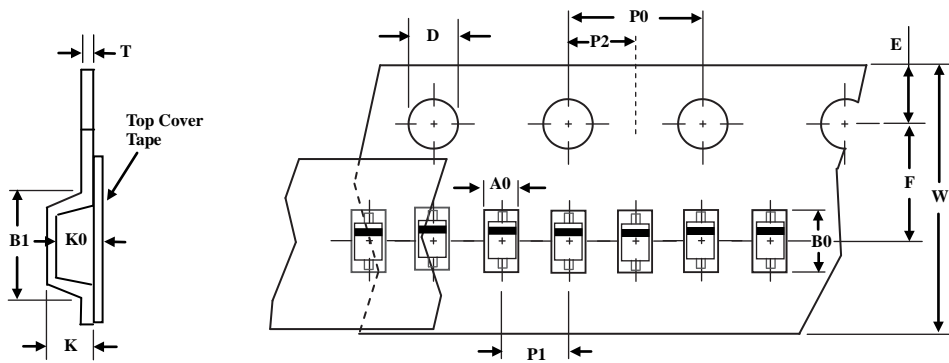
| Dim | mm   |      |
|-----|------|------|
|     | min  | max  |
| A   | 0.34 | 0.43 |
| B   | 0.07 | 0.17 |
| C   | 0.55 | 0.65 |
| D   | 0.75 | 0.85 |
| E   | 0.95 | 1.05 |
| F   | 0.05 | 0.15 |
| G   | 0.15 | 0.25 |

### PAD Dimensions



| Dim | mm   |
|-----|------|
| I   | 0.90 |
| J   | 0.30 |
| K   | 0.35 |

### Package Information

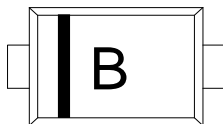


| TapeSize(W) | B1 max | D         | E        | F        | K max | P0      | P1       | P2       | T max | W max |
|-------------|--------|-----------|----------|----------|-------|---------|----------|----------|-------|-------|
| 8           | 4.55   | 1.55±0.05 | 1.75±0.1 | 3.5±0.05 | 2.4   | 4.0±0.1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

### Marking



### Order Information

| Device       | Package | Net Weight | Carrier     | Quantity       | HSF Status     |
|--------------|---------|------------|-------------|----------------|----------------|
| SES5VD923-2U | SOD-923 | 0.0006g    | Tape & Reel | 8000pcs / Reel | RoHS compliant |