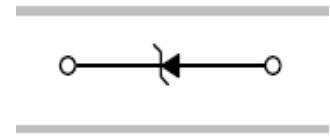


## Features

- Transient protection for data&power lines to IEC 61000-4-2(ESD)  $\pm 30\text{Kv}(\text{air})$ ,  $\pm 30\text{kV}(\text{contact})$
- IEC 61000-4-4(EFT) 40A( $t_p=5/50\text{ns}$ )
- IEC 61000-4-5(Lightning) 6A( $t_p=8/20\mu\text{s}$ )
- Working Voltage: 36V
- Low clamping voltage
- Low leakage current

HF



SOD-323

## Typical Applications

- Switches / Buttons
- Test Equipment
- Point-of-Sale Terminals
- Medical Equipment
- Computer Peripherals
- Automotive Electronics

## Mechanical Data

- Case: SOD-323
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208

## Ordering Information

| Part Number | Package | Shipping               | Marking Code |
|-------------|---------|------------------------|--------------|
| PSD36       | SOD-323 | 3000 pcs / Tape & Reel | g4           |

## Maximum Ratings (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

| Characteristic                                  | Symbol    | Value    | Units |
|-------------------------------------------------|-----------|----------|-------|
| Peak pulse power ( $t_p = 8/20\mu\text{s}$ )    | $P_{PK}$  | 450      | W     |
| Peak pulse current ( $t_p = 8/20\mu\text{s}$ )  | $I_{PP}$  | 6        | A     |
| Reverse Stand-off Voltage                       | $V_{RWM}$ | 36       | V     |
| ESD according to IEC61000-4-2 air discharge     | $V_{ESD}$ | $\pm 30$ | KV    |
| ESD according to IEC61000-4-2 contact discharge |           | $\pm 30$ |       |

## Thermal Characteristics

| Parameter                 | Symbol    | Value       | Units |
|---------------------------|-----------|-------------|-------|
| Junction temperature      | $T_J$     | -55 to +125 | °C    |
| Storage temperature range | $T_{STG}$ | -55 to +150 | °C    |

## Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter                                  | Symbol   | Test conditions                            | Min. | Typ. | Max. | Units         |
|--------------------------------------------|----------|--------------------------------------------|------|------|------|---------------|
| Reverse breakdown voltage                  | $V_{BR}$ | $I_R=1\text{mA}$                           | 40   | -    | -    | V             |
| Reverse leakage current <sup>(Note1)</sup> | $I_R$    | $V_{RWM}=36\text{V}$                       | -    | -    | 1    | $\mu\text{A}$ |
| Clamping voltage                           | $V_C$    | $I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$ | -    | -    | 52   | V             |
|                                            |          | $I_{PP}=6\text{A}$ , $t_p=8/20\mu\text{s}$ | -    | -    | 94   |               |
| Junction capacitance                       | $C_J$    | $V_R=0\text{V}$ , $f=1\text{MHz}$          | -    | -    | 30   | pF            |

Note1: Short duration pulse test used to minimize self-heating effect.

## Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

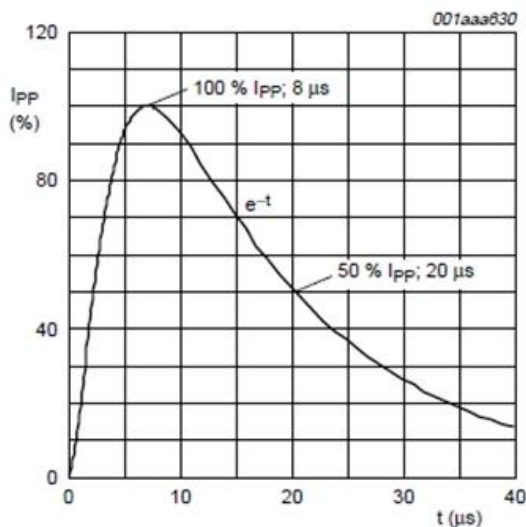


Fig1. 8/20us pulse waveform according to IEC61000-4-5

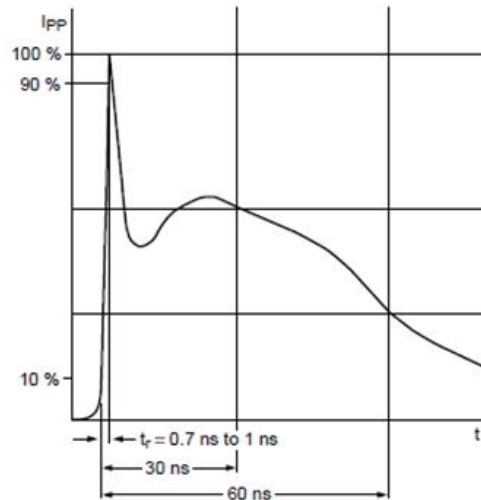
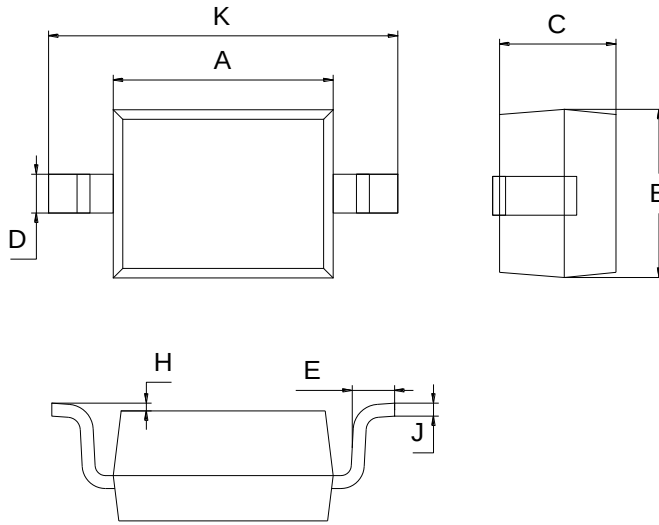


Fig2. ESD pulse waveform according to IEC61000-4-2

## Package Outline Dimensions (unit: mm)

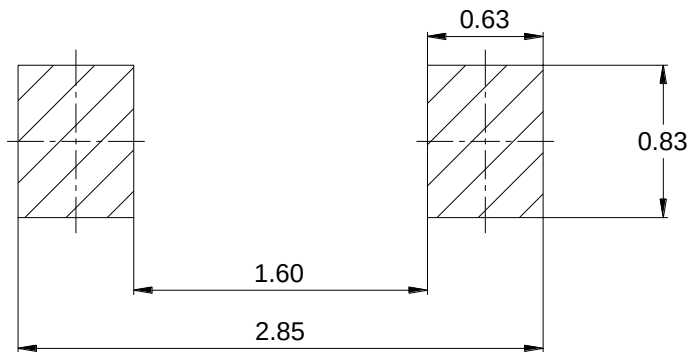
### SOD-323



| SOD-323 |      |      |
|---------|------|------|
| Dim     | Min  | Max  |
| A       | 1.60 | 1.80 |
| B       | 1.20 | 1.40 |
| C       | 0.80 | 0.90 |
| D       | 0.25 | 0.35 |
| E       | 0.22 | 0.42 |
| H       | 0.02 | 0.10 |
| J       | 0.05 | 0.15 |
| K       | 2.55 | 2.75 |

## Mounting Pad Layout (unit: mm)

### SOD-323



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