

## Feature

- Ultra Small mold type. (SOD523)
- Low  $I_R$
- High reliability.



## Applications

- Low current rectification

## Construction

- Silicon epitaxial planar

## Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness: $\leq$ 3mil

## Electrical characteristics per line@25°C

| Parameter       | Symbol | Min. | Typ. | Max. | Unit    | Conditions  |
|-----------------|--------|------|------|------|---------|-------------|
| Forward voltage | $V_F$  | -    | -    | 0.6  | V       | $I_F=200mA$ |
| Reverse current | $I_R$  | -    | -    | 1    | $\mu A$ | $V_R=20V$   |

## Absolute maximum rating@25°C

| Parameter                              | Symbol    | limits      | Unit |
|--|-----------|-------------|------|
| Reverse voltage (DC)                   | $V_{RM}$  | 40          | V    |
| Average rectified forward current      | $I_o$     | 200         | mA   |
| Forward current surge peak (60Hz 1cyc) | $I_{FSM}$ | 1           | A    |
| Operating Junction temperature Range   | $T_j$     | -55 to 125  | °C   |
| Storage temperature                    | $T_{stg}$ | -40 to +125 | °C   |

## Typical Characteristics

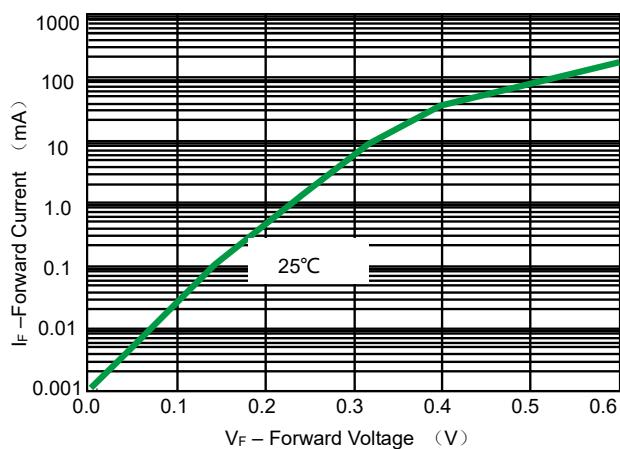


Fig 1. Forward Voltage

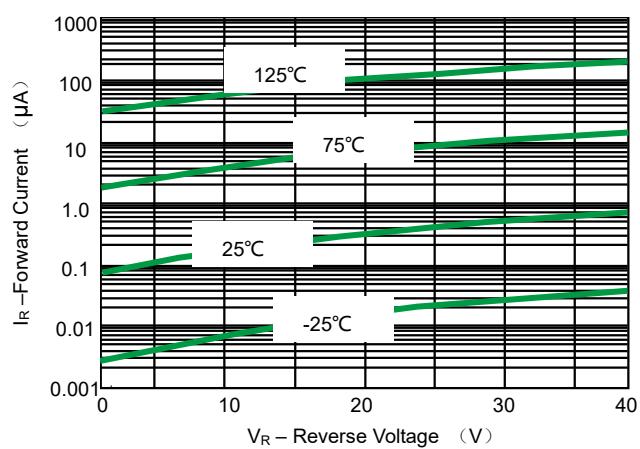


Fig 2. Leakage Current

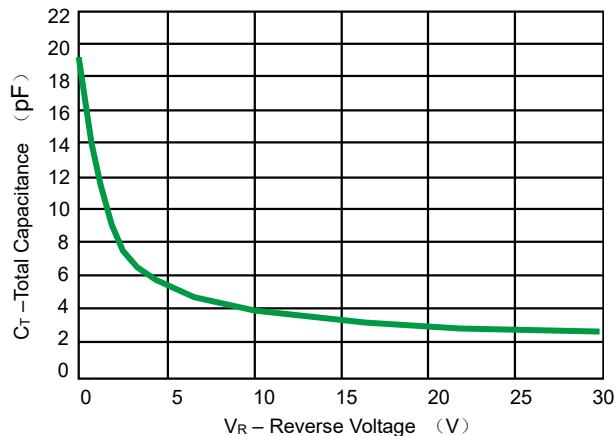
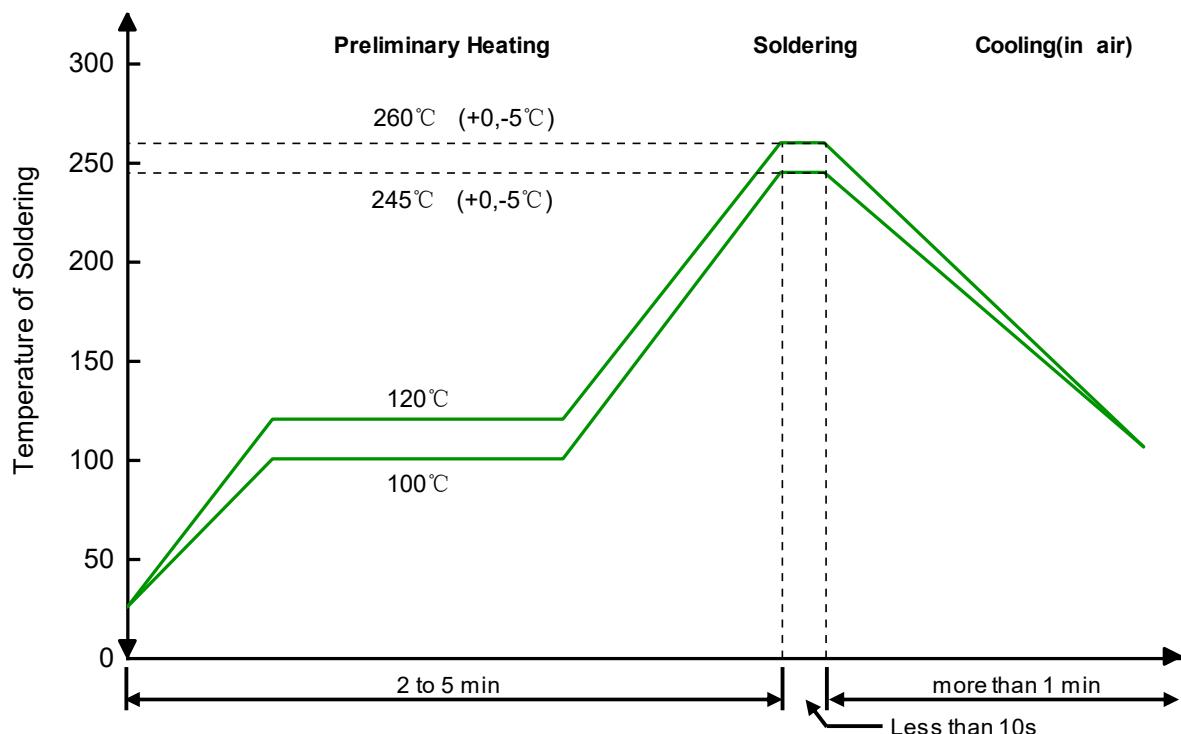


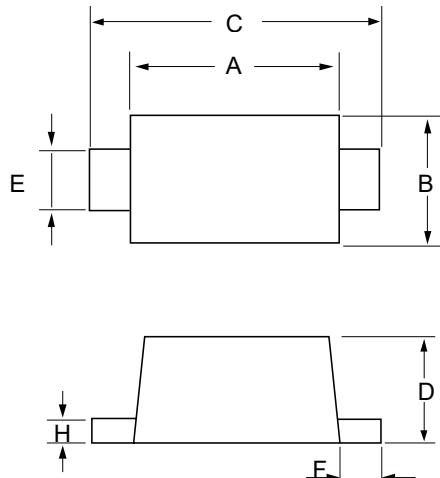
Fig 3. Total Capacitance

## Solder Reflow Recommendation

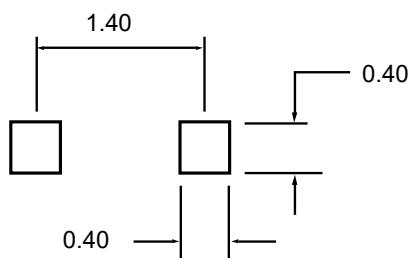


Remark: Pb free for 260°C; Pb for 245°C.

## Product dimension (SOD-523)



| Dim | Inches |        | Millimeters |      |
|-----|--------|--------|-------------|------|
|     | MIN    | MAX    | MIN         | MAX  |
| A   | 0.043  | 0.051  | 1.10        | 1.30 |
| B   | 0.028  | 0.035  | 0.70        | 0.90 |
| C   | 0.059  | 0.067  | 1.50        | 1.70 |
| D   | 0.016  | 0.028  | 0.40        | 0.70 |
| E   | 0.010  | 0.014  | 0.25        | 0.35 |
| F   | 0.006  | 0.010  | 0.15        | 0.25 |
| H   | 0.0028 | 0.0079 | 0.07        | 0.20 |

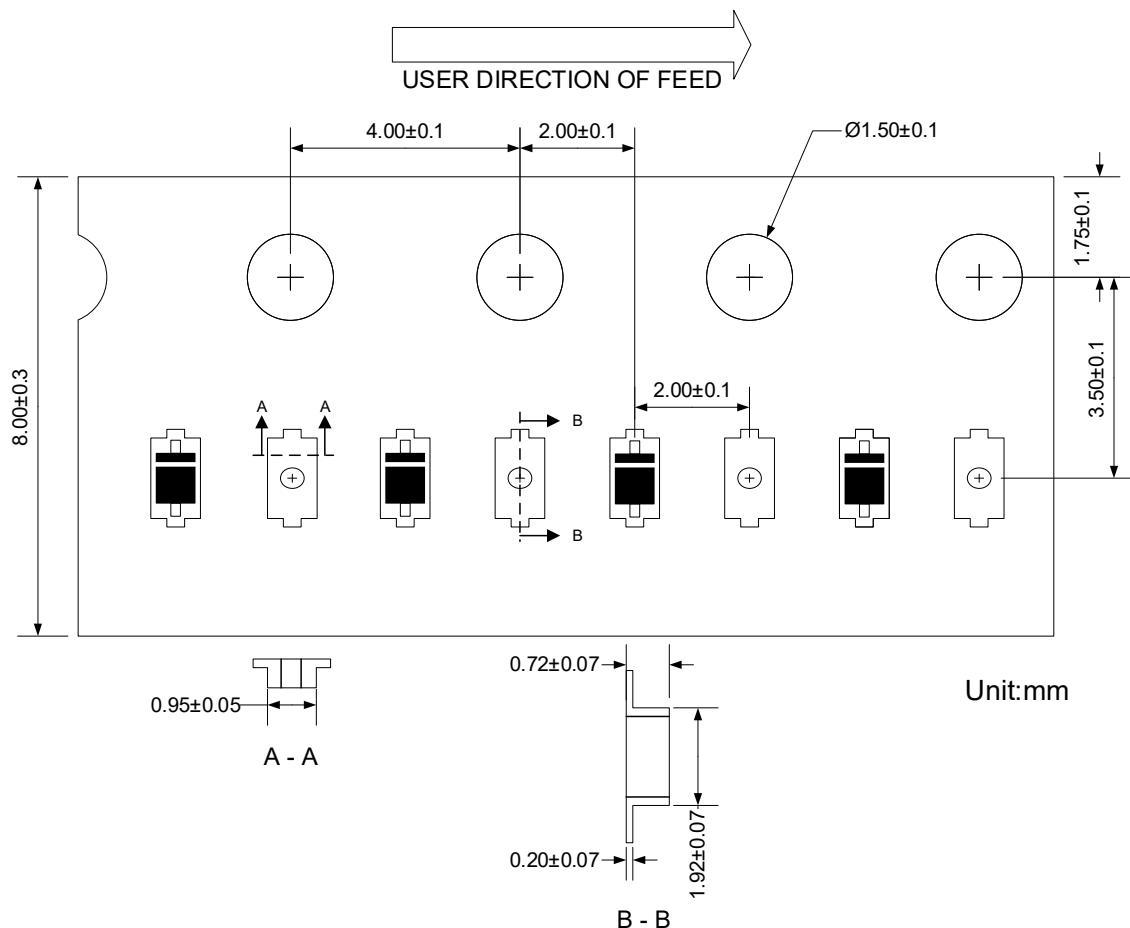


Unit:mm

## Ordering information

| Device      | Package           | Shipping           |
|-------------|-------------------|--------------------|
| PSBD520S-40 | SOD-523 (Pb-Free) | 3000 / Tape & Reel |

## Load with information



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