

## RB501V-40 SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

### Features

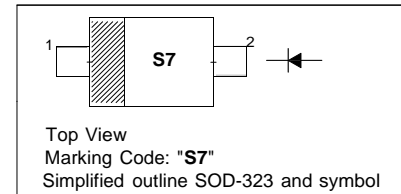
- Small surface mounting type
- High reliability

### Applications

- Low current rectification

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

| Parameter                                     | Symbol    | Value         | Unit             |
|---|-----------|---------------|------------------|
| Peak Reverse Voltage                          | $V_{RM}$  | 45            | V                |
| Reverse Voltage                               | $V_R$     | 40            | V                |
| Mean Rectifying Current                       | $I_O$     | 0.1           | A                |
| Peak Forward Surge Current (60 Hz for 1 Cyc.) | $I_{FSM}$ | 1             | A                |
| Junction Temperature                          | $T_j$     | 125           | $^\circ\text{C}$ |
| Storage Temperature Range                     | $T_{stg}$ | - 40 to + 125 | $^\circ\text{C}$ |

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter  | Symbol | Typ. | Max. | Unit          |
|--|--------|------|------|---------------|
| Forward Voltage<br>at $I_F = 100\text{ mA}$<br>at $I_F = 10\text{ mA}$       | $V_F$  | -    | 0.55 | V             |
|  | $V_F$  | -    | 0.34 | V             |
| Reverse Current<br>at $V_R = 10\text{ V}$                                    | $I_R$  | -    | 30   | $\mu\text{A}$ |
| Capacitance Between Terminals<br>at $V_R = 10\text{ V}$ , $f = 1\text{ MHz}$ | $C_T$  | 6    | -    | pF            |

Note: ESD sensitive product handling required.

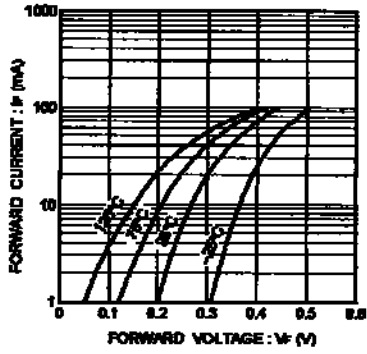


Fig. 1 Forward characteristics

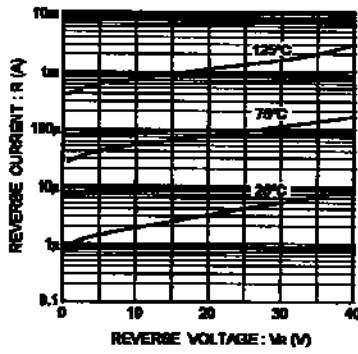


Fig. 2 Reverse characteristics

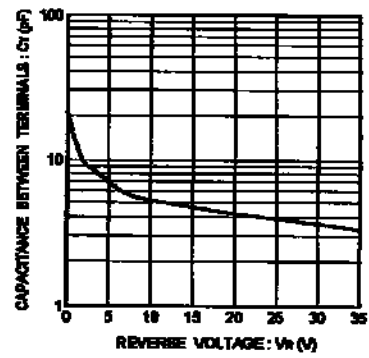


Fig. 3 Capacitance between terminals characteristics

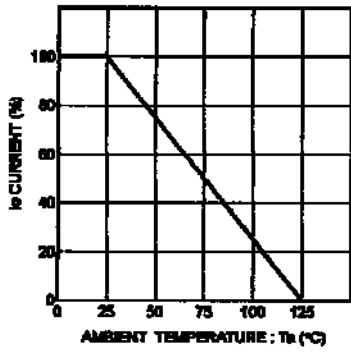
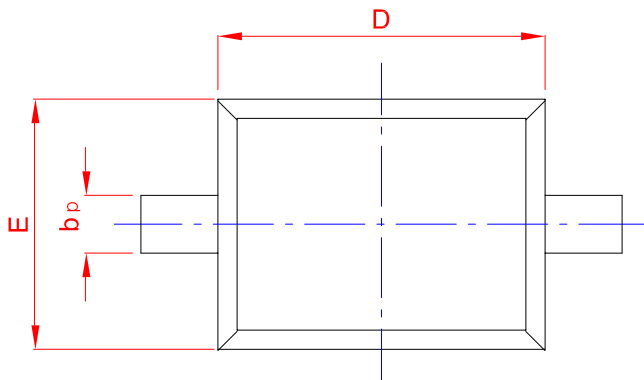
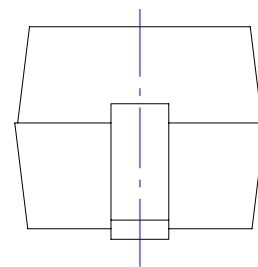
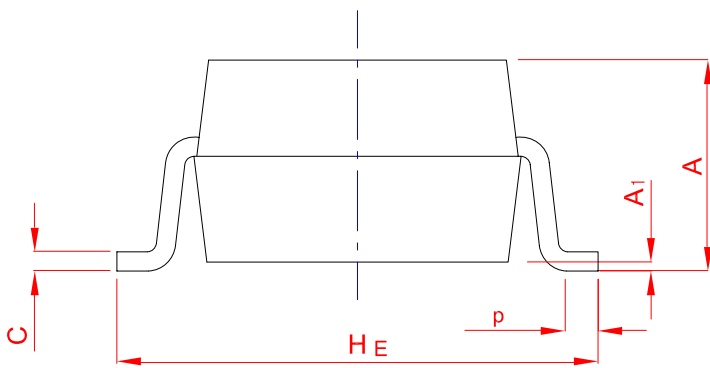
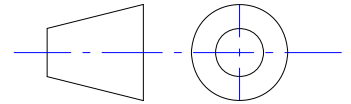


Fig. 4 Derating curve  
(mounting on glass epoxy PCBs)

# PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A    | b <sub>p</sub> | C    | D    | E    | H <sub>E</sub> | A <sub>1</sub> | L <sub>p</sub> |
|------|------|----------------|------|------|------|----------------|----------------|----------------|
| mm   | 1.20 | 0.40           | 0.15 | 1.80 | 1.35 | 2.80           | 0.10           | 0.50           |
|      | 0.90 | 0.25           | 0.10 | 1.60 | 1.15 | 2.30           | 0.01           | 0.20           |