

RB521S-40

Silicon Epitaxial Planar Schottky Barrier Diode

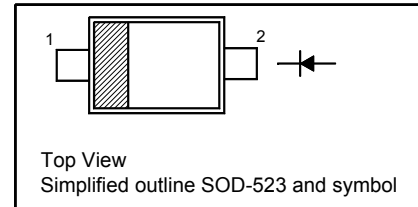
for rectifying small power applications

Features

- Ultra small mold type
- Low forward voltage
- High reliability

PINNING

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

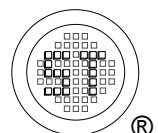


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-------------|---------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RM} | 45 | V |
| Reverse Voltage | V_R | 40 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 200 | mA |
| Peak Forward Surge Current (60Hz for Cyc.) | I_{FSM} | 1 | A |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Max. | Unit |
|---|-------------|----------------------|---------------------|---------------|
| Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$ | $V_{(BR)R}$ | 40 | - | V |
| Forward Voltage at $I_F = 10 \text{ mA}$ at $I_F = 100 \text{ mA}$ at $I_F = 200 \text{ mA}$ | V_F | 0.16 0.31 0.41 | 0.3 0.45 0.54 | V |
| Reverse Current at $V_R = 10 \text{ V}$ at $V_R = 40 \text{ V}$ | I_R | - - | 20 90 | μA |



Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

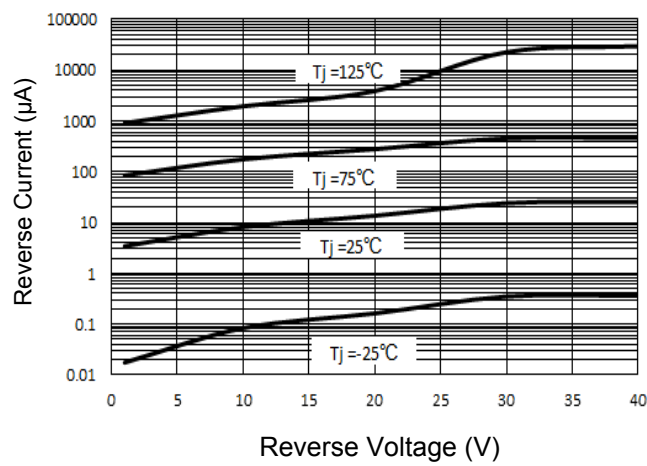


Fig 2. Forward Characteristics Curve

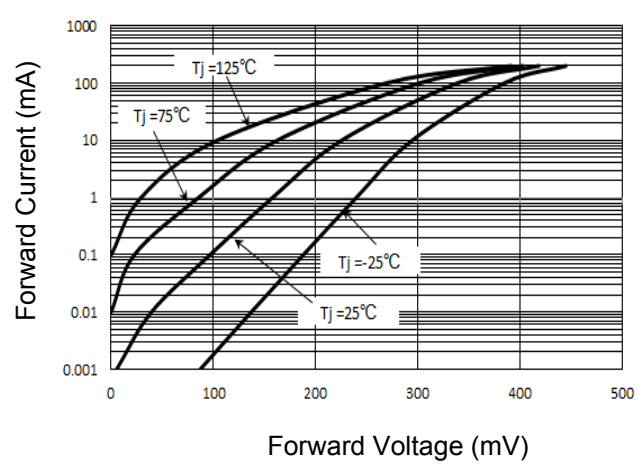


Fig 3. Average Current Derating Curve

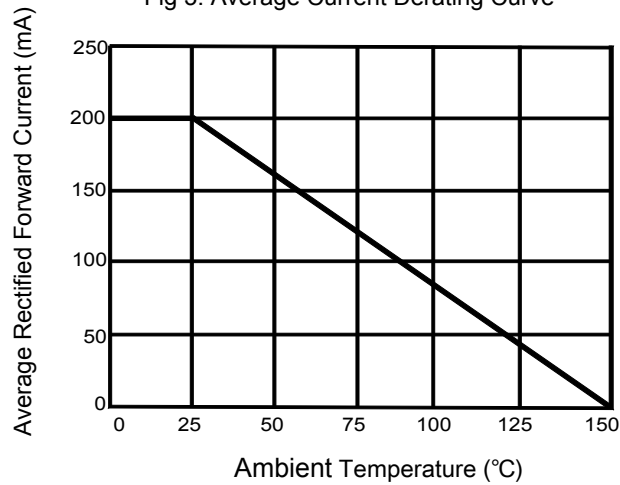
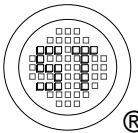
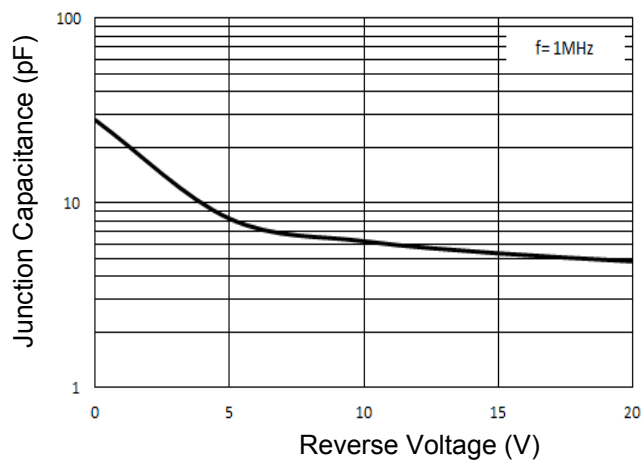


Fig 4. Junction Capacitance

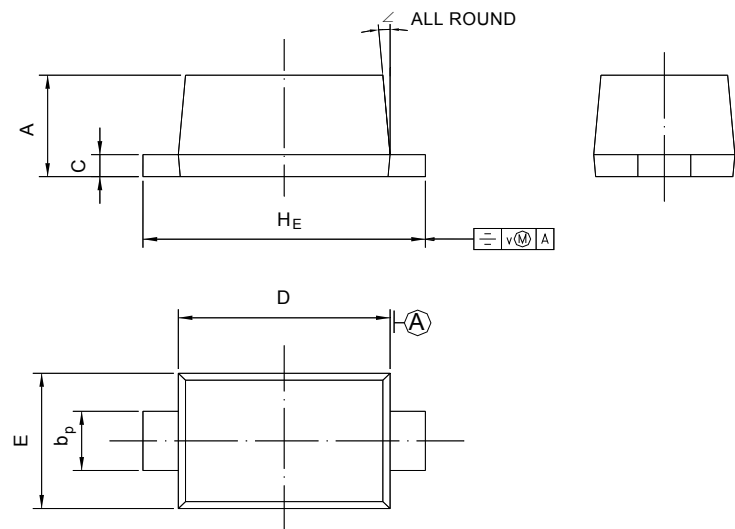


RB521S-40

PACKAGE OUTLINE

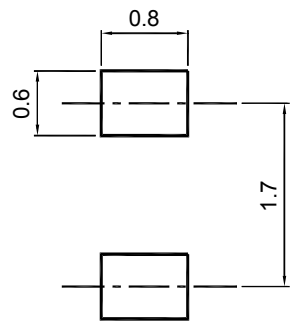
Plastic surface mounted package; 2 leads

SOD-523



| UNIT | A | b _p | C | D | E | H _E | V | ∠ |
|------|--------------|----------------|----------------|--------------|--------------|----------------|-----|----|
| mm | 0.70 0.60 | 0.4 0.3 | 0.135 0.100 | 1.25 1.15 | 0.85 0.75 | 1.7 1.5 | 0.1 | 5° |

Recommended Soldering Footprint



Packing information

| Package | Tape Width (mm) | Pitch | | Reel Size | | Per Reel Packing Quantity |
|---------|-----------------|---------|---------------|-----------|------|---------------------------|
| | | mm | inch | mm | inch | |
| SOD-523 | 8 | 4 ± 0.1 | 0.157 ± 0.004 | 178 | 7 | 4,000 |

Marking information

" Z " = Part No.
" III " = Cathode line
Font type: Arial

