

### Features

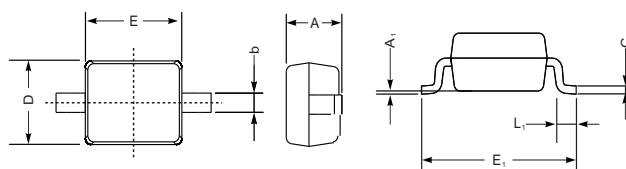
- Small surface mounting type
- Ultra low  $V_F$
- High reliability

### Applications

- High frequency rectification switching regulation

Marking Code: **D**

### SOD323



| UNIT |     | A   | C    | D   | E   | E <sub>1</sub> | b    | L <sub>1</sub> | A <sub>1</sub> |
|------|-----|-----|------|-----|-----|----------------|------|----------------|----------------|
| mm   | max | 1.1 | 0.15 | 1.4 | 1.8 | 2.75           | 0.4  | 0.45           | 0.2            |
|      | min | 0.8 | 0.08 | 1.2 | 1.4 | 2.55           | 0.25 | 0.2            | —              |
| mil  | max | 43  | 5.9  | 55  | 70  | 108            | 16   | 16             | 8              |
|      | min | 32  | 3.1  | 47  | 63  | 100            | 9.8  | 7.9            | —              |

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

| Parameter                                     | Symbol    | Value         | Unit             |
|-----------------------------------------------|-----------|---------------|------------------|
| Peak Reverse Voltage                          | $V_{RM}$  | 40            | V                |
| DC Reverse Voltage                            | $V_R$     | 20            | V                |
| Mean Rectifying Current                       | $I_O$     | 0.5           | A                |
| Peak Forward Surge Current (60 Hz for 1 Cyc.) | $I_{FSM}$ | 2             | A                |
| Junction Temperature                          | $T_j$     | 125           | $^\circ\text{C}$ |
| Storage Temperature Range                     | $T_{stg}$ | - 40 to + 125 | $^\circ\text{C}$ |

# RB551V-40

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

| Parameter                                                               | Symbol | Max.         | Unit          |
|-------------------------------------------------------------------------|--------|--------------|---------------|
| Forward Voltage<br>at $I_F = 100\text{ mA}$<br>at $I_F = 500\text{ mA}$ | $V_F$  | 0.36<br>0.47 | V             |
| Reverse Current<br>at $V_R = 30\text{ V}$                               | $I_R$  | 100          | $\mu\text{A}$ |

Note: ESD sensitive product handling required.

## RATING AND CHARACTERISTIC CURVES (RB551V-40)

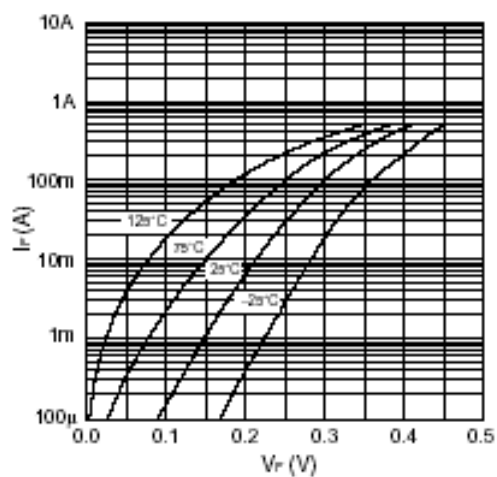


Fig.1 Forward characteristics

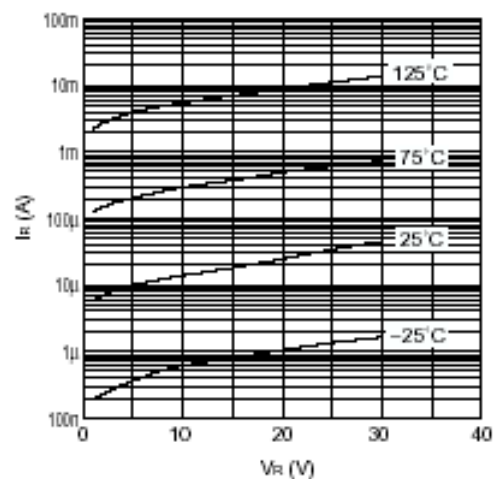


Fig.2 Reverse characteristics

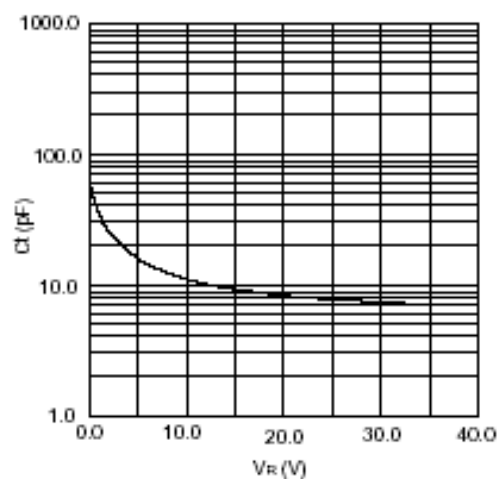


Fig.3 Capacitance between terminals characteristics

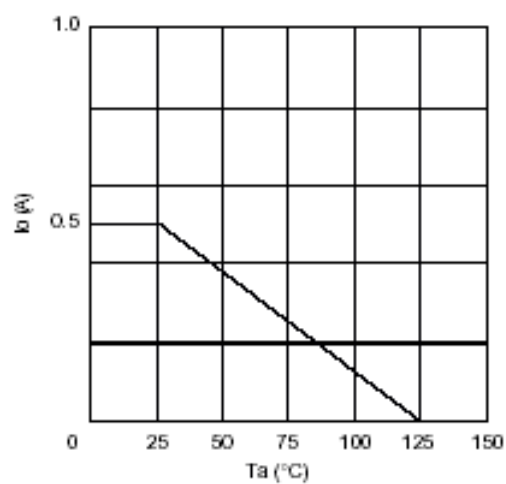


Fig.4 Derating curve