

## RB551V-40 Schottky Barrier Diode

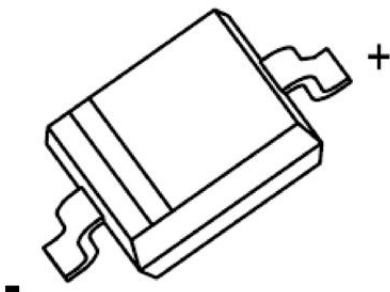
### Feature

- Small Power Mold Type
- Low VF
- Low IR
- High Reliability

### Application

- High Frequency Inverters
- Free Wheeling
- Polarity Protection Applications

### Package:



SOD-323

### Circuit diagram



### Marking



**Absolute maximum ratings (Ta=25°C unless otherwise noted)**

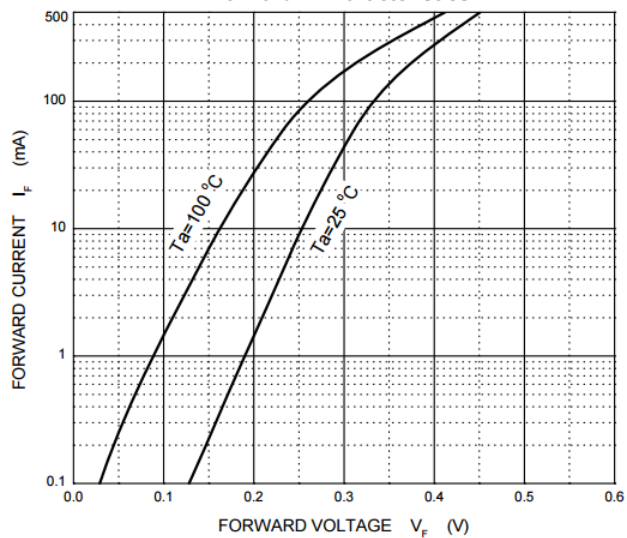
| Parameter                                           | Symbol          | Value      | Unit |
|-----------------------------------------------------|-----------------|------------|------|
| Peak reverse voltage                                | $V_{RM}$        | 40         | V    |
| DC reverse voltage                                  | $V_R$           | 40         | V    |
| Mean rectifying current                             | $I_O$           | 0.5        | A    |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | $I_{FSM}$       | 2          | A    |
| Power Dissipation                                   | $P_D$           | 200        | mW   |
| Thermal Resistance from Junction to Ambient         | $R_{\theta JA}$ | 500        | °C/W |
| Junction Temperature                                | $T_J$           | 125        | °C   |
| Storage Temperature                                 | $T_{STG}$       | -55 ~ +150 | °C   |

**Electrical characteristics (T<sub>A</sub>=25 °C, unless otherwise noted)**

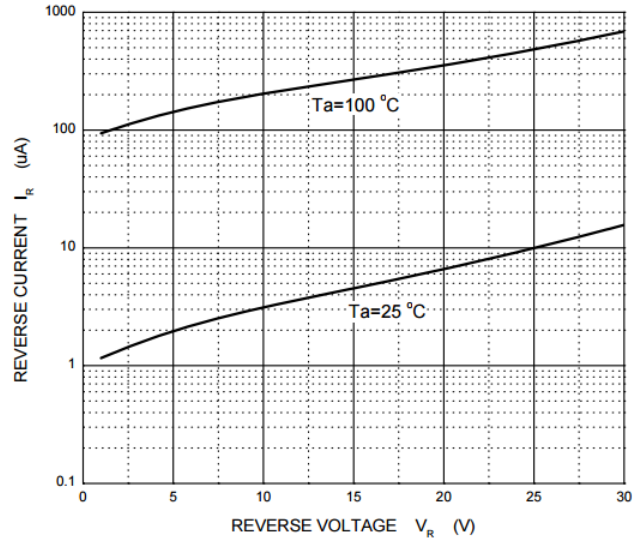
| Parameter       | Symbol     | Test Condition | Min. | Typ. | Max. | Unit |
|-----------------|------------|----------------|------|------|------|------|
| Reverse Voltage | $V_{(BR)}$ | $I_R=0.1mA$    | 40   |      |      | V    |
| Forward voltage | $V_F$      | $I_F=0.5A$     |      |      | 0.47 | V    |
| Reverse current | $I_R$      | $V_R=20V$      |      |      | 100  | μA   |

## Typical Characteristics

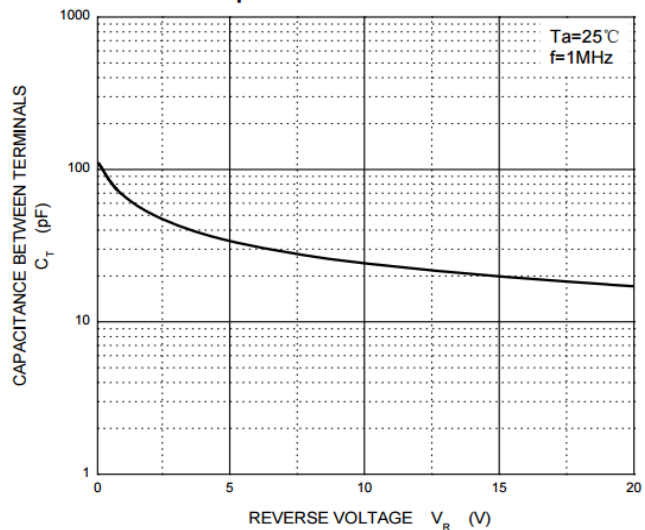
**Forward Characteristics**



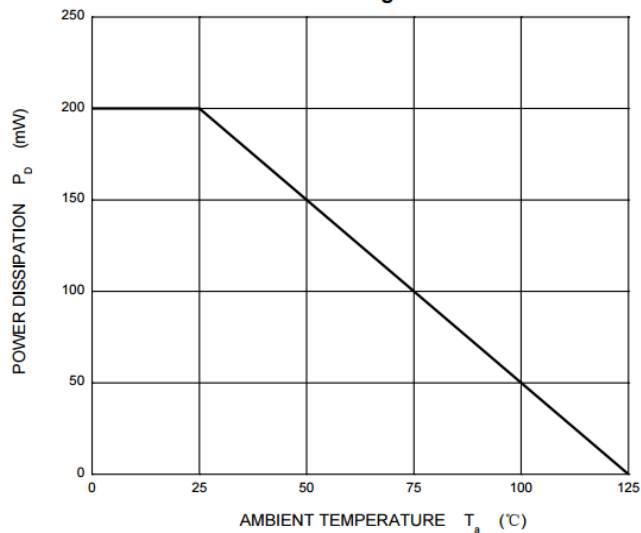
**Reverse Characteristics**



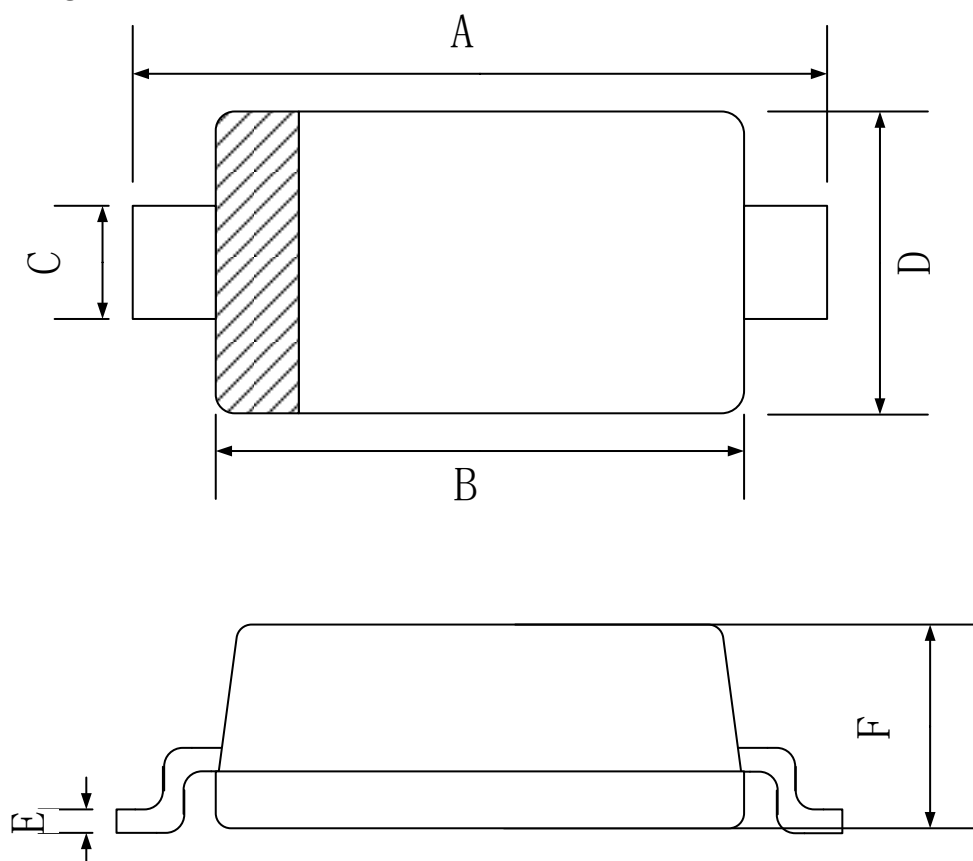
**Capacitance Characteristics**



**Power Derating Curve**



# SOD-323 Package Information



| Symbol | Dimensions In Millimeters |       |       |
|--------|---------------------------|-------|-------|
|        | Min.                      | Typ.  | Max.  |
| A      | 2.30                      | 2.50  | 2.70  |
| B      | 1.60                      | 1.70  | 1.90  |
| C      | 0.25                      | 0.325 | 0.40  |
| D      | 1.15                      | 1.25  | 1.35  |
| E      | 0.089                     | 0.095 | 0.101 |
| F      | 0.80                      | 0.90  | 1.00  |