

# Schottky barrier diode

## RB400D

### ●Applications

High frequency rectification  
Switching power supply

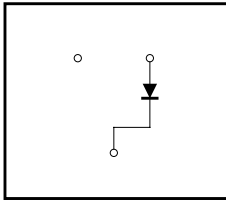
### ●Features

- 1) Small surface mounting type. (SMD3)
- 2) Low  $I_R$ . ( $I_R=1\mu\text{A}$  Typ.)
- 3) High reliability.

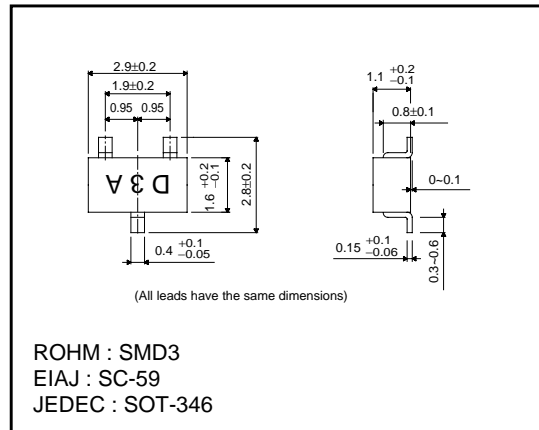
### ●Construction

Silicon epitaxial planar

### ●Circuit



### ●External dimensions (Units : mm)



### ●Absolute maximum ratings (Ta = 25°C)

| Parameter                  | Symbol    | Limits   | Unit |
|----------------------------|-----------|----------|------|
| Peak reverse voltage       | $V_{RM}$  | 40       | V    |
| DC reverse voltage         | $V_R$     | 40       | V    |
| Mean rectifying current    | $I_o$     | 0.5      | A    |
| Peak forward surge current | $I_{FSM}$ | 3        | A    |
| Junction temperature       | $T_j$     | 125      | °C   |
| Storage temperature        | $T_{stg}$ | -40~+125 | °C   |

### ●Electrical characteristics (Ta = 25°C)

| Parameter                     | Symbol   | Min. | Typ. | Max. | Unit          | Conditions                         |
|-------------------------------|----------|------|------|------|---------------|------------------------------------|
| Forward voltage               | $V_F$    | -    | -    | 0.55 | V             | $I_F=0.5\text{A}$                  |
| Reverse current               | $I_{R1}$ | -    | -    | 50   | $\mu\text{A}$ | $V_R=30\text{V}$                   |
|                               | $I_{R2}$ | -    | -    | 30   | $\mu\text{A}$ | $V_R=10\text{V}$                   |
| Capacitance between terminals | $C_t$    | -    | 125  | -    | pF            | $V_R=0\text{V}$ , $f=1\text{MHz}$  |
|                               | $C_i$    | -    | 20   | -    | pF            | $V_R=10\text{V}$ , $f=1\text{MHz}$ |

Note) ESD Sensitive product handling required.

Diodes

●Electrical characteristic curves (Ta = 25°C)

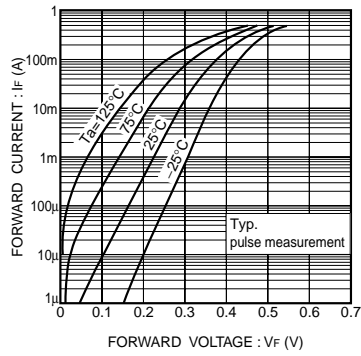


Fig.1 Forward characteristics

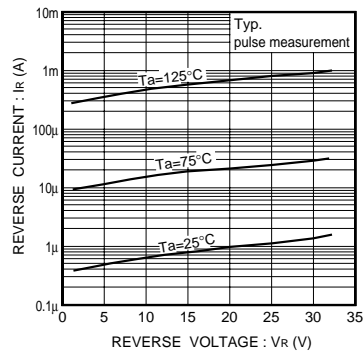


Fig.2 Reverse characteristics

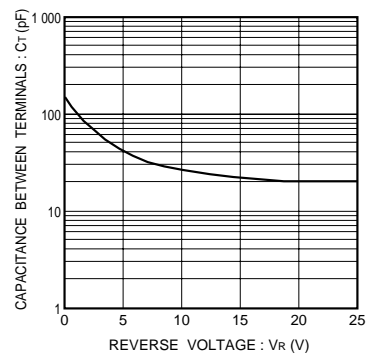


Fig.3 Capacitance between terminals characteristics

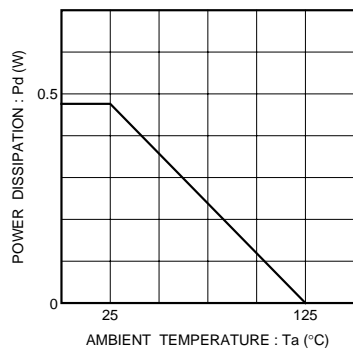


Fig.4 Derating curve