

# Schottky barrier diode

## RB420D

### ●Applications

Low power rectification

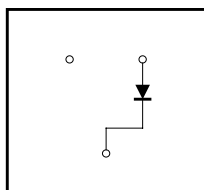
### ●Features

- 1) Small surface mounting type. (SMD3)
- 2) Low  $I_R$ . ( $I_R=50\text{nA}$  Typ.)
- 3) High reliability

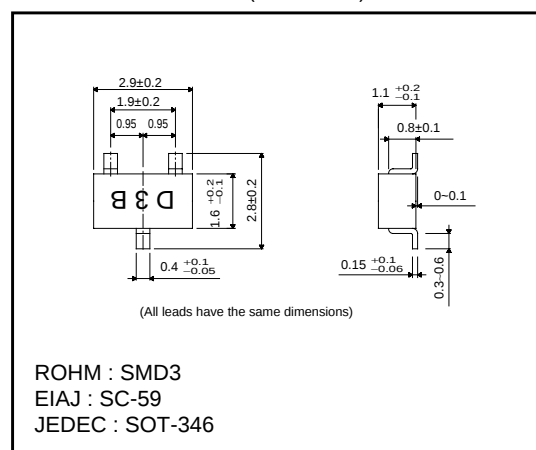
### ●Construction

Silicon epitaxial planar

### ●Circuit



### ●External dimensions (Units : mm)



### ●Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

| Parameter                   | Symbol    | Limits        | Unit             |
|-----------------------------|-----------|---------------|------------------|
| Peak reverse voltage        | $V_{RM}$  | 40            | V                |
| DC reverse voltage          | $V_R$     | 40            | V                |
| Mean rectifying current     | $I_o$     | 0.1           | A                |
| Peak forward surge current* | $I_{FSM}$ | 1             | A                |
| Junction temperature        | $T_j$     | 125           | $^\circ\text{C}$ |
| Storage temperature         | $T_{stg}$ | $-40\sim+125$ | $^\circ\text{C}$ |

\* 60Hz for 1  $\mu\text{s}$

### ●Electrical characteristics ( $T_a=25^\circ\text{C}$ )

| Parameter                     | Symbol | Min. | Typ. | Max. | Unit          | Conditions                         |
|-------------------------------|--------|------|------|------|---------------|------------------------------------|
| Forward voltage               | $V_F$  | —    | —    | 0.45 | V             | $I_F=10\text{mA}$                  |
| Reverse current               | $I_R$  | —    | —    | 1    | $\mu\text{A}$ | $V_R=10\text{V}$                   |
| Capacitance between terminals | $C_T$  | —    | 6.0  | —    | pF            | $V_R=10\text{V}$ , $f=1\text{MHz}$ |

Note) ESD sensitive product handling required.

## Diodes

●Electrical characteristic curves ( $T_a=25^\circ\text{C}$ )