

# Schottky barrier diode

## RB083L-20

### ●Applications

High frequency rectification  
For switching power supply

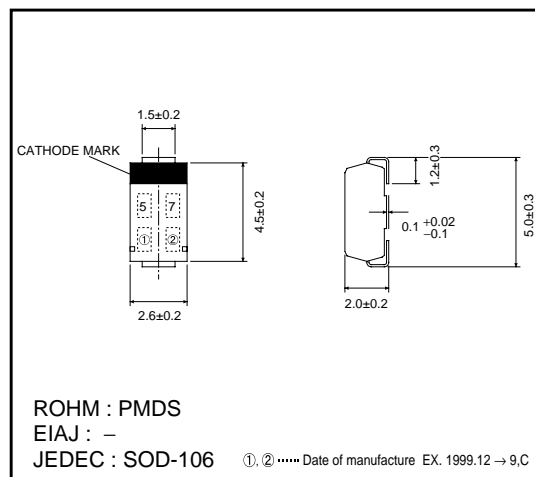
### ●Features

- 1) Compact power mold type. (PMDS)
- 2) Ultra low  $V_F$  / Low  $I_R$ .
- 3)  $I_o=5A$  guaranteed despite the size.

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units : mm)



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

| Parameter                                      | Symbol    | Limits   | Unit |
|------------------------------------------------|-----------|----------|------|
| Peak reverse voltage                           | $V_{RM}$  | 25       | V    |
| DC reverse voltage                             | $V_R$     | 20       | V    |
| Mean rectifying current *                      | $I_o$     | 5        | A    |
| Peak forward surge current<br>(60Hz 1 $\sim$ ) | $I_{FSM}$ | 70       | A    |
| Junction temperature                           | $T_j$     | 125      | °C   |
| Storage temperature                            | $T_{stg}$ | -40~+125 | °C   |

\* When mounted on alumina PCBs (82×30×1.0mm),  $T_c$  Max.=90°C

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

| Parameter       | Symbol | Min. | Typ. | Max. | Unit    | Conditions |
|-----------------|--------|------|------|------|---------|------------|
| Forward voltage | $V_F$  | -    | -    | 0.39 | V       | $I_F=3.0A$ |
| Reverse current | $I_R$  | -    | -    | 500  | $\mu A$ | $V_R=20V$  |

Diodes

● Electrical characteristic curves (Ta=25°C)

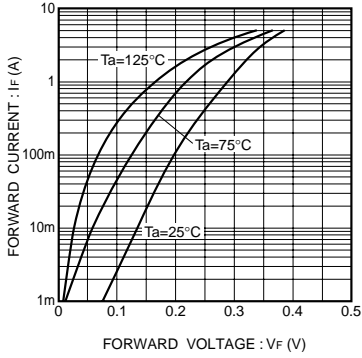


Fig.1 Forward characteristics

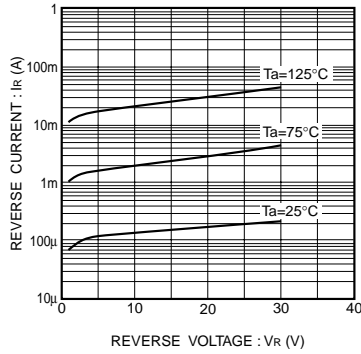


Fig.2 Reverse characteristics

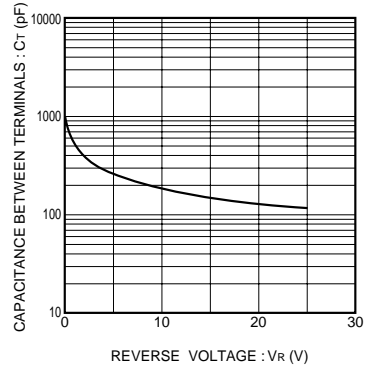


Fig.3 Capacitance between terminals characteristics

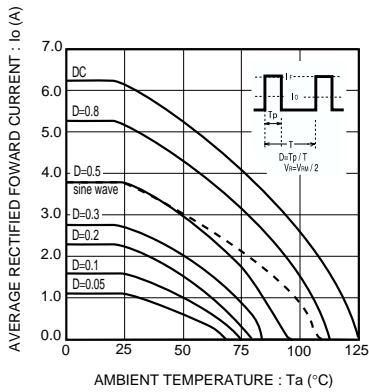


Fig.4 Derating curve ( $I_o$ - $T_a$ )  
(When mounted on alumina PCBs)

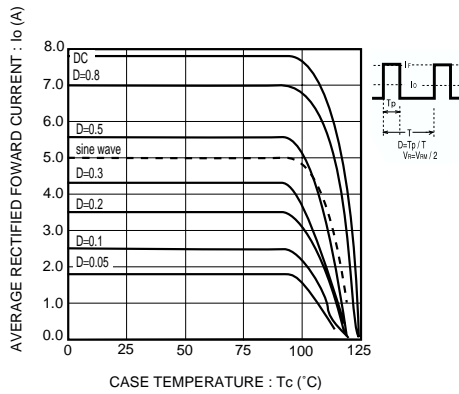


Fig.5 Derating curve ( $I_o$ - $T_c$ )  
(When mounted on alumina PCBs)