

# Schottky barrier diode

## RB060L-40

### ●Applications

High frequency rectification  
For switching power supply

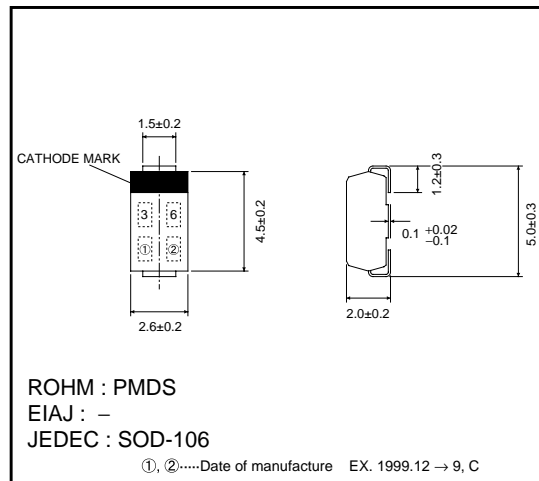
### ●Features

- 1) Compact power mold type. (PMDS)
- 2)  $I_o=2A$  guaranteed despite the size.
- 3) Low  $I_R$ . ( $I_R=10\mu A$  Typ.)

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units : mm)



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

| Parameter                                | Symbol    | Limits   | Unit       |
|--|-----------|----------|------------|
| Peak reverse voltage                     | $V_{RM}$  | 40       | V          |
| DC reverse voltage                       | $V_R$     | 40       | V          |
| Mean rectifying current*1                | $I_o$     | 2.0      | A          |
| Peak forward surge current*2 (60Hz, 1ms) | $I_{FSM}$ | 70       | A          |
| Junction temperature                     | $T_j$     | 125      | $^\circ C$ |
| Storage temperature                      | $T_{stg}$ | -40~+125 | $^\circ C$ |

\*1 When mounted on an alumina PCBs (82×30×1.0 mm board),  
180° half sine wave.

\*2 60Hz, 1ms

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

| Parameter          | Symbol         | Max. | Unit           | Conditions                        |
|--------------------|----------------|------|----------------|-----------------------------------|
| Forward voltage    | $V_{F1}$       | 0.50 | V              | $I_F=2.0A$                        |
|                    | $V_{F2}$       | 0.45 | V              | $I_F=1.0A$                        |
| Reverse current    | $I_R$          | 1.0  | mA             | $V_R=40V$                         |
| Thermal resistance | $\theta_{j-a}$ | 90   | $^\circ C / W$ | When mounting on alumina PCBs     |
|                    | $\theta_{j-a}$ | 120  | $^\circ C / W$ | When mounting on glass epoxy PCBs |

Diodes

●Electrical characteristics curves (Ta=25°C)

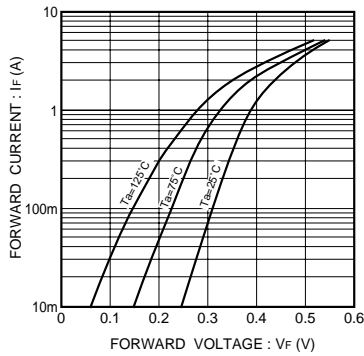


Fig.1 Forward characteristics

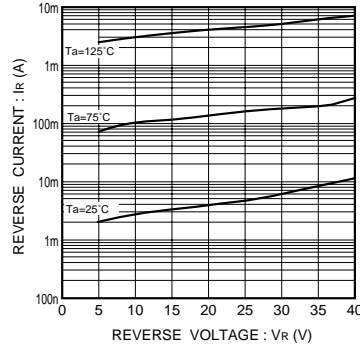


Fig.2 Reverse characteristics

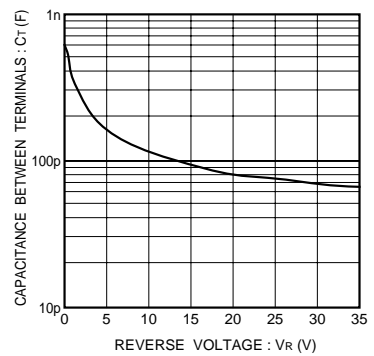


Fig.3 Capacitance between terminals characteristics

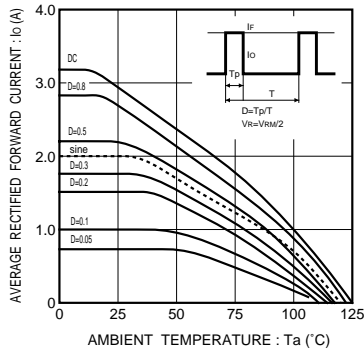


Fig.4 Derating curve (when mounted on an alumina PCBs)

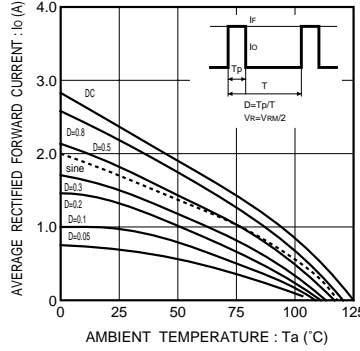


Fig.5 Derating curve (when mounted on a glass epoxy PCBs)

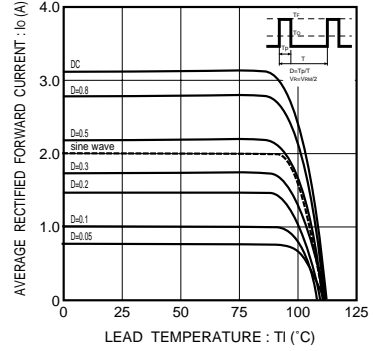


Fig.6 Derating curve (when mounted on a glass epoxy PCBs)

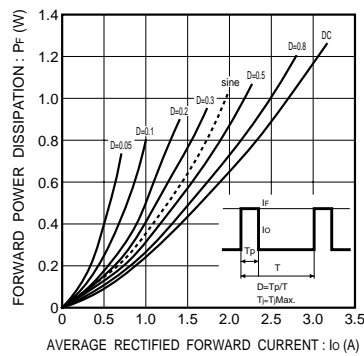


Fig.7 Forward power dissipation

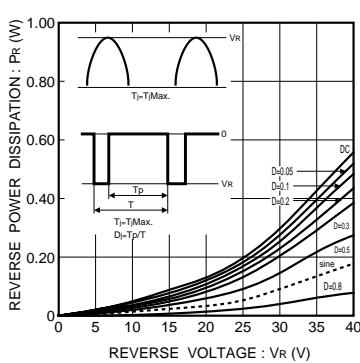


Fig.8 Reverse power dissipation