

# Shottky barrier diode

## RSX501L-20

### ●Application

General rectification.

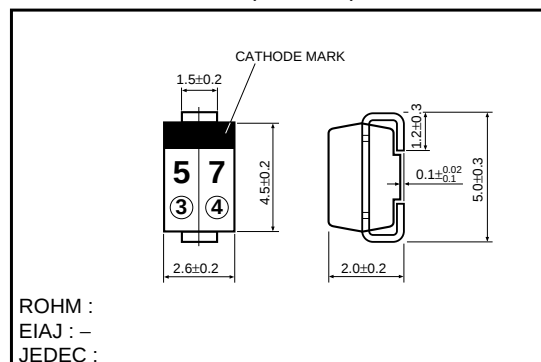
### ●Features

- 1) Small power mold type. (PMDS)
- 2) High reliability.
- 3) Low  $V_F$ .

### ●Structure

Silicon Epitaxial Planer

### ●External dimensions (Unit : mm)



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

| Parameter                                 | Symbol    | Limits     | Unit |
|-------------------------------------------|-----------|------------|------|
| Reverse voltage (repetitive peak)         | $V_{RM}$  | 25         | V    |
| Reverse voltage (DC)                      | $V_R$     | 20         | V    |
| Average rectified forward current         | $I_O$     | 5          | A *  |
| Forward current surge peak (60Hz / 1cyc.) | $I_{FSM}$ | 70         | A    |
| Junction temperature                      | $T_j$     | 125        | °C   |
| Storage temperature                       | $T_{stg}$ | -40 to 125 | °C   |

\*On the Glass epoxy substrate, 180° Half sine wave,  $T_c=90^\circ\text{C}$  MAX.

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

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

# Diodes

## ●Electrical characteristic curves (Ta=25°C)

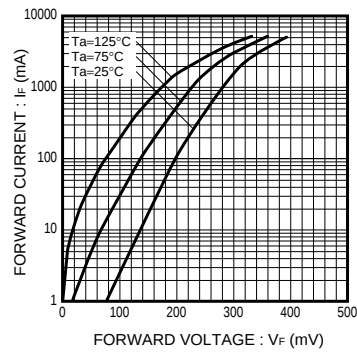


Fig.1 Forward Temperature Characteristics

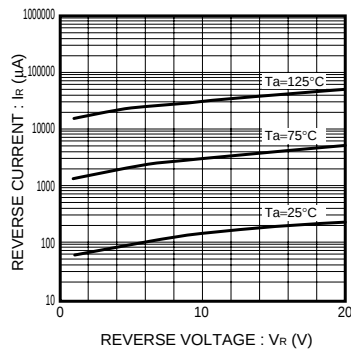


Fig.2 Reverse Temperature Characteristics

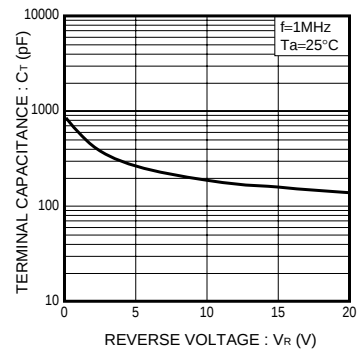


Fig.3 Capacitance Between Terminals Characteristics

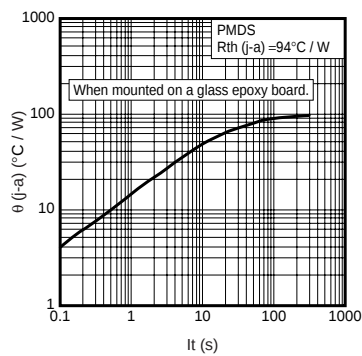


Fig.4

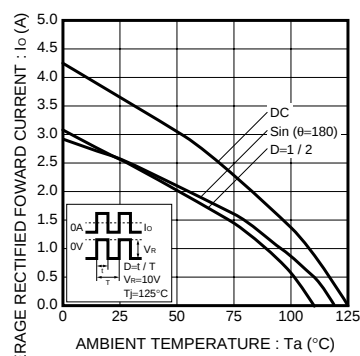


Fig.5 Derating Curve (Io-Ta)

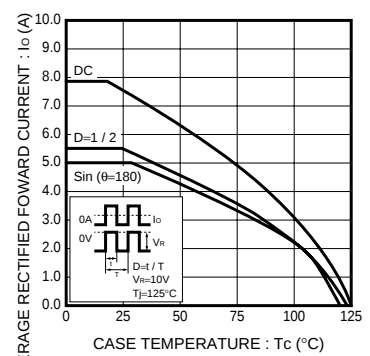


Fig.6 Derating Curve (Io-Tc)

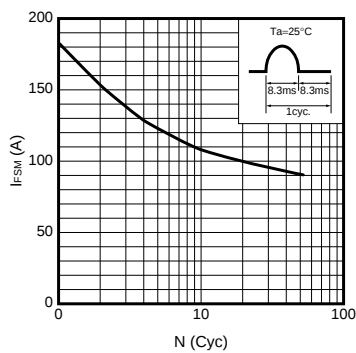


Fig.7

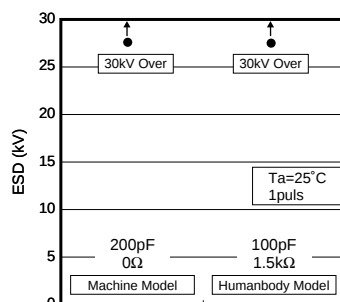


Fig.8 ESD