

# Schottky barrier diode

## RB491D

### ●Applications

Low-power rectification  
For switching power supply

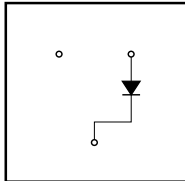
### ●Features

- 1) Small surface mounting type. (SMD3)
- 2) Ultra low  $V_F$ . ( $V_F=0.40V$  Typ. at 1A)
- 3)  $I_F=1.0A$  guaranteed despite the size.

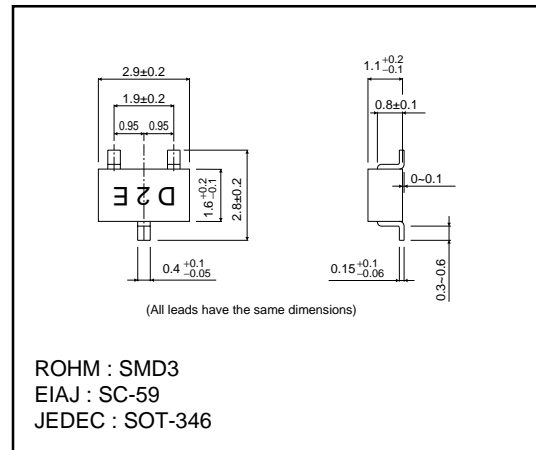
### ●Construction

Silicon epitaxial planar

### ●Circuit



### ●External dimensions (Units : mm)



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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	25	V
DC reverse voltage	$V_R$	20	V
DC forward current	$I_F$	1.0	A
Peak forward surge current *	$I_{FSM}$	3	A
Junction temperature	$T_j$	125	$^\circ C$
Storage temperature	$T_{stg}$	-40~+125	$^\circ C$

\* 60Hz for 1ms

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.45	V	$I_F=1.0A$
Reverse current	$I_R$	-	-	200	$\mu A$	$V_R=20V$

Note) ESD sensitive product handling required.

Diodes

●Electrical characteristic curves (Ta=25°C)

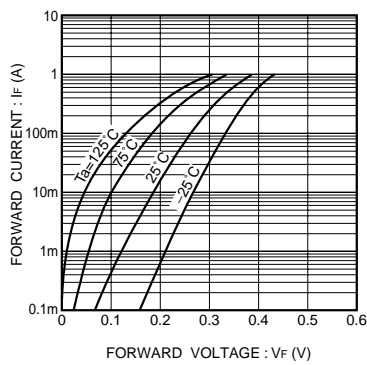


Fig.1 Forward characteristics

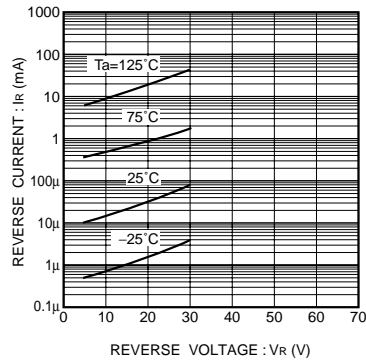


Fig.2 Reverse characteristics

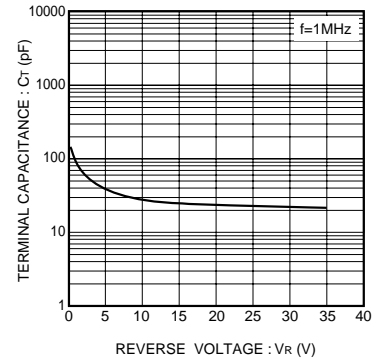


Fig.3 Capacitance between terminals characteristics

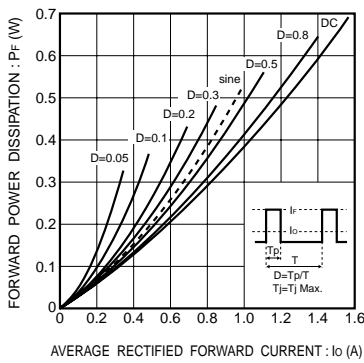


Fig.4 Forward power dissipation characteristics

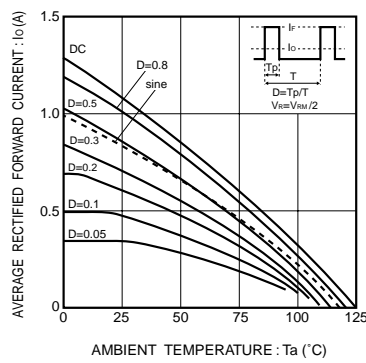


Fig.5 Derating curve ( $I_o - T_a$ )