High frequency rectifier schottky barrier diode

RB491D *New*

●Applications

Low power rectification
For switching power supply

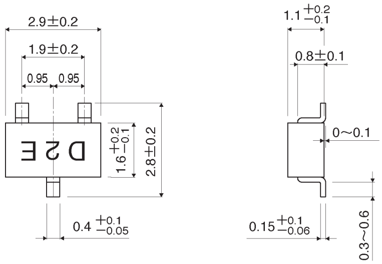
●Features

1) Small surface mounting type. (SMD3 (SC-59))
2) Extreme low forward voltage.
   (typical capability of 0.45V at 1A)
3) I_F = 1.0A achieved despite the size.

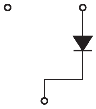
●Construction

Silicon epitaxial

●External dimensions (Units: mm)



(All leads have the same dimensions)



ROHM : SMD3
EIAJ : SC-59
JEDEC : SOT-23 similar

●Absolute maximum ratings (Ta = 25°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	Tj	125	℃
Storage temperature	Tstg	−40～+125	℃

* 60 Hz for 1 ∿

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	−	0.40	0.45	V	I_F=1.0A
Reverse current	I_R	−	−	200	μA	V_R=20V

* ESD sensitive product handling required.

●Electrical characteristic curves (Ta = 25°C unless specified otherwise)

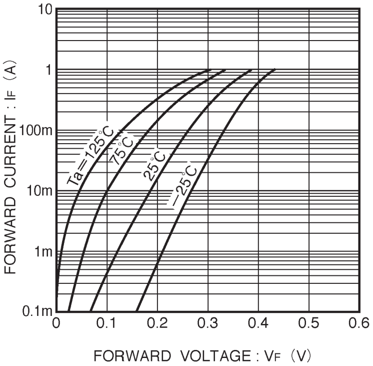


Fig. 1 Forward characteristics

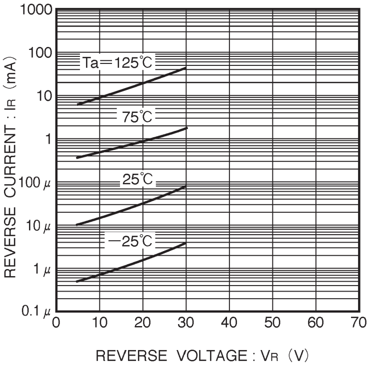


Fig. 2 Reversecharacteristics

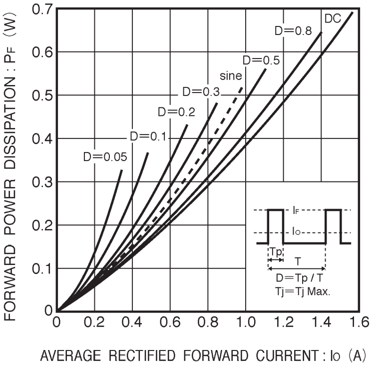


Fig. 3 Forward power dissipation characteristics

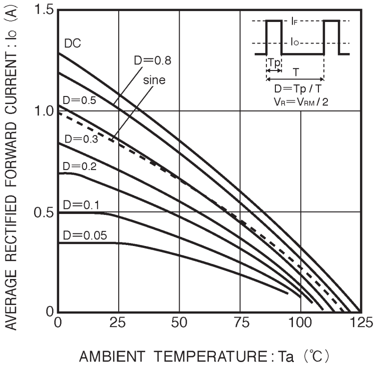


Fig. 4 Derating curve (IO - Ta)