High frequency rectifier schottky barrier diode

RB051L–40 *New*

●Applications

High frequency rectification
For switching power supply

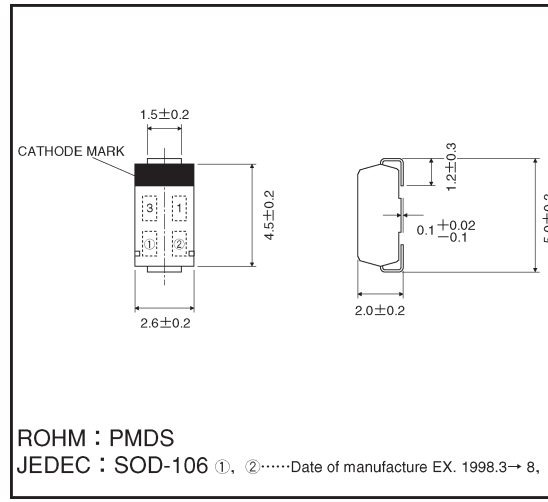
●Features

1) Compact power mold type. (PMDS)
2) Extreme low forward voltage.
   (typical capability of 0.29V at 1A)
3) V_{RM}=40V guaranteed.

●Construction

Silicon epitaxial planar

●External dimensions (Units: mm)



ROHM : PMDS
JEDEC : SOD-106 ①, ②·····Date of manufacture EX. 1998.3→ 8, 3

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	40	V
DC reverse voltage	V_R	20	V
Mean rectifying current *	I_O	3.0	A
Peak forward surge current (60Hz・1周)	I_{FSM}	70	A
Junction temperature	Tj	125	℃
Storage temperature	Tstg	−40～+125	℃

* TL 90℃ Max. 180° half sine wave when mounted on an alumina substrate (82 x 30 x 1.0 mm)

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Typ.	Max.	Unit	Conditions
Forward voltage	V_F1	0.29	0.35	V	I_F=1.0A
	V_F2	0.35	0.45	V	I_F=3.0A
Reverse current	I_R1	0.09	1.0	mA	V_R=20V
	I_R2	60	150	μA	V_R=15V

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

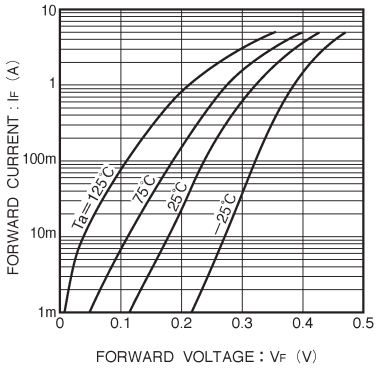


Fig. 1 Forward characteristics

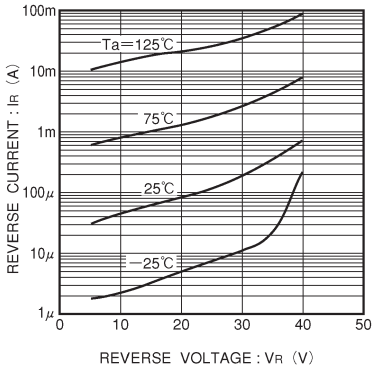


Fig. 2 Reverse characteristics

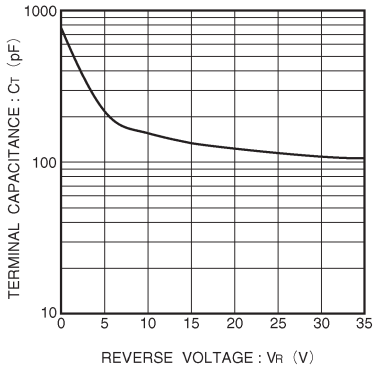


Fig. 3 Capacitance between terminals characteristics

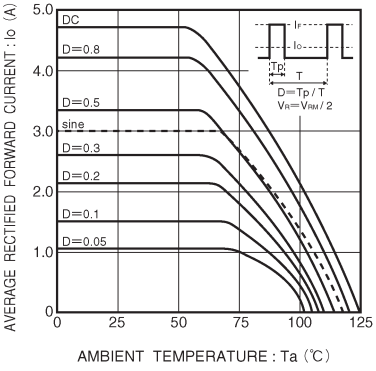


Fig. 4 Derating curve (Io - Ta)

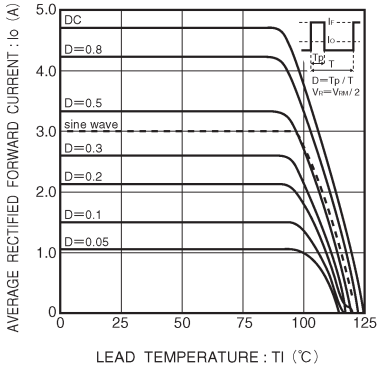


Fig. 5 Derating curve (Io - Tl) (When mounted on almina PCBs)

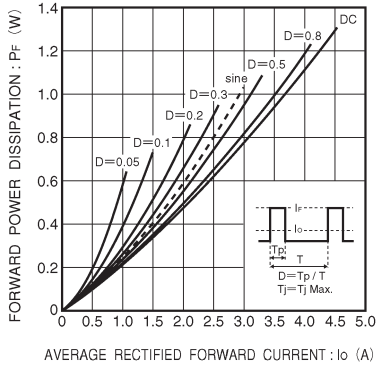


Fig. 6 Forward power dissipation characteristics

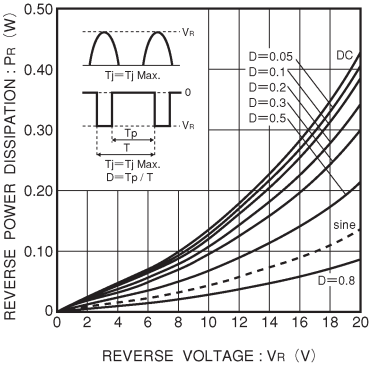


Fig. 7 Reverse power dissipation characteristics

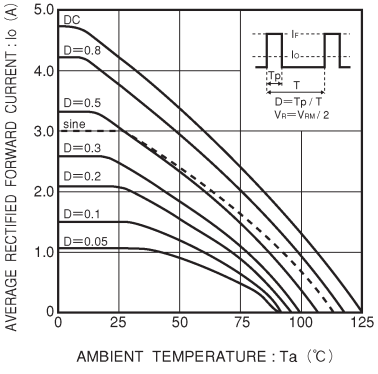


Fig. 8 Derating curve (when mounted on a glass epoxy PCBs board)