

# Schottky barrier diode

## RB053L-30

### ●Applications

High frequency rectification  
For switching power supply

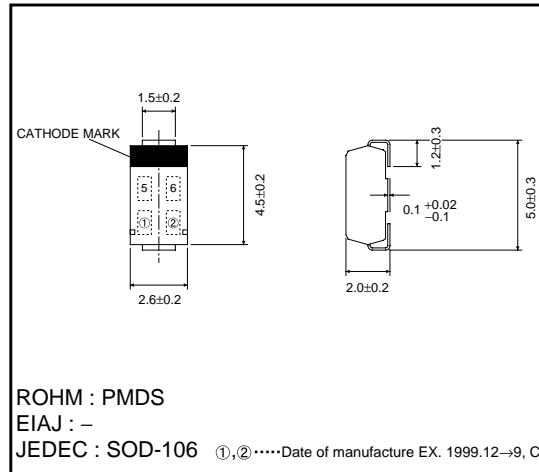
### ●Features

- 1) Compact power mold type. (PMDS)
- 2) Ultra low  $V_F$  / Low  $I_R$ .
- 3)  $V_{RM}=30V$  guaranteed.

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units : mm)



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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	30	V
DC reverse voltage	$V_R$	30	V
Mean rectifying current *	$I_O$	3.0	A
Peak forward surge current (60Hz · 1 $\sim$ ms)	$I_{FSM}$	70	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40~+125	$^\circ\text{C}$

\* $T_C$  Max. =  $90^\circ\text{C}$  when mounted on alumina PCBs.

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.42	V	$I_F=3.0A$
Reverse current	$I_{R1}$	-	-	90	$\mu\text{A}$	$V_R=15V$
	$I_{R2}$	-	-	200	$\mu\text{A}$	$V_R=30V$

Diodes

●Electrical characteristic curves (Ta = 25°C)

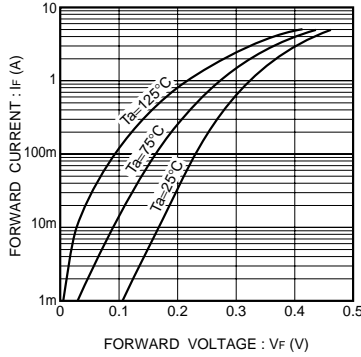


Fig.1 Forward characteristics

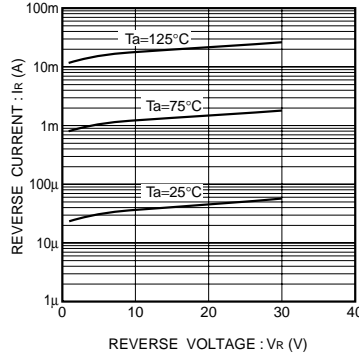


Fig.2 Reverse characteristics

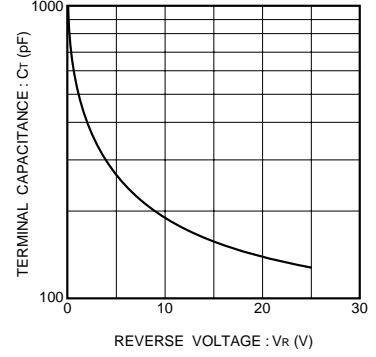


Fig.3 Capacitance between terminals characteristics

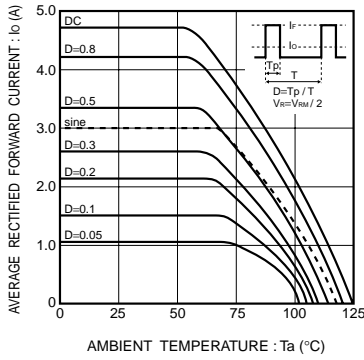


Fig.4 Derating curve (Io - Ta)  
(When mounted on alumina PCBs)

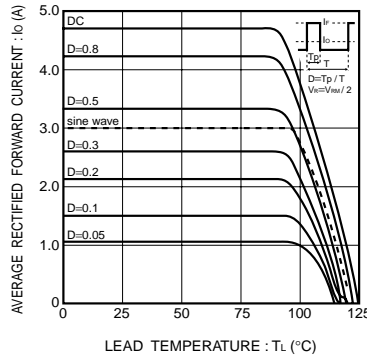


Fig.5 Derating curve (Io - Tl)  
(When mounted on alumina PCBs)

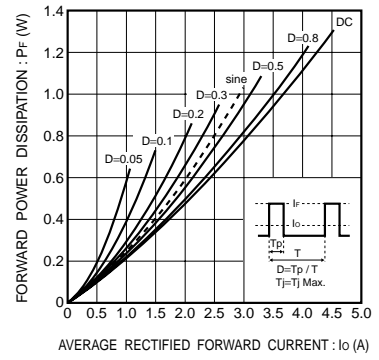


Fig.6 Forward power dissipation characteristics

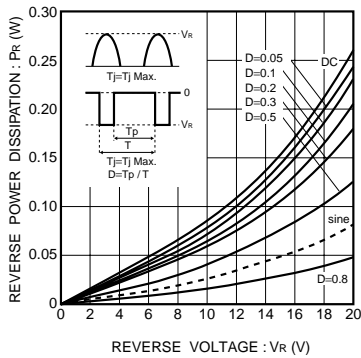


Fig.7 Reverse power dissipation characteristics

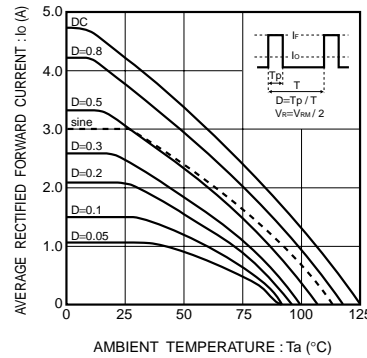


Fig.8 Derating curve (Io - Ta)  
(when mounted on glass epoxy PCBs)