

# Shottky barrier diode

## RB050LA-40

### ●Application

General rectification.

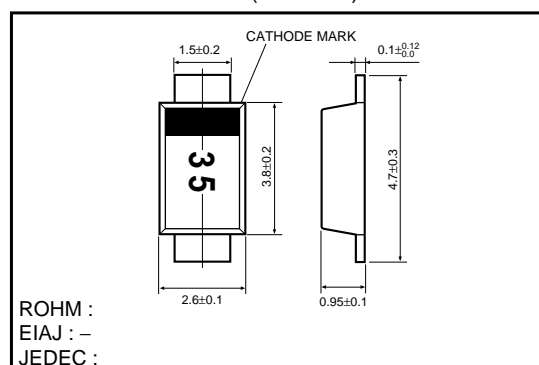
### ●Features

- 1) Small and Thin power mold type (PMDT).
- 2) Mold type.
- 3) High reliability.
- 4) Low  $V_F$ .

### ●Structure

Silicon Epitaxial Planer

### ●External dimensions (Unit : mm)



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

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	$I_o$	3.0	A *
Forward current surge peak (60Hz / 1cyc.)	$I_{FSM}$	70	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to 150	$^\circ\text{C}$

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_{F1}$	-	-	0.50	V	$I_F=1.5\text{A}$
	$V_{F2}$	-	-	0.55	V	$I_F=3.0\text{A}$
Reverse current	$I_R$	-	-	100	$\mu\text{A}$	$V_R=40\text{V}$

Diodes

●Electrical characteristic curves (Ta=25°C)

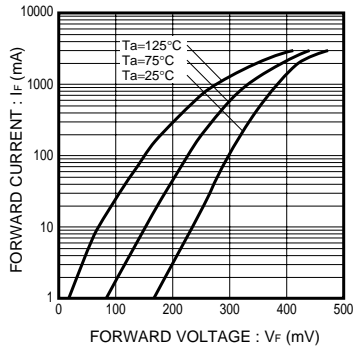


Fig.1 Forward Temperature Characteristics

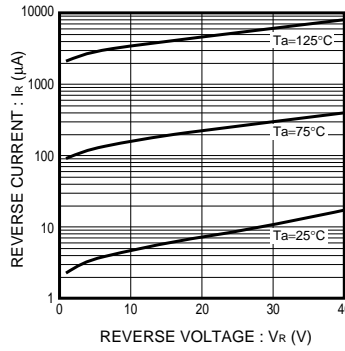


Fig.2 Reverse Temperature Characteristics

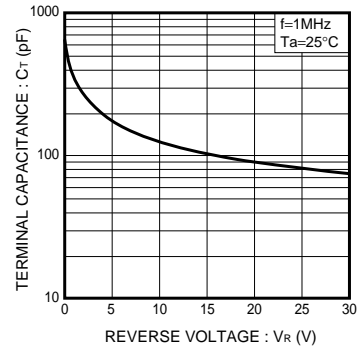


Fig.3 Capacitance Between Terminals Characteristics

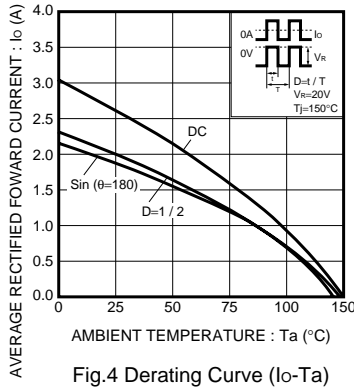


Fig.4 Derating Curve (Io-Ta)

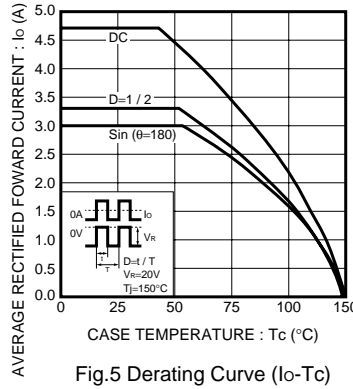


Fig.5 Derating Curve (Io-Tc)

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