

Shottky barrier diode

RB050LA-40

●Application

General rectification.

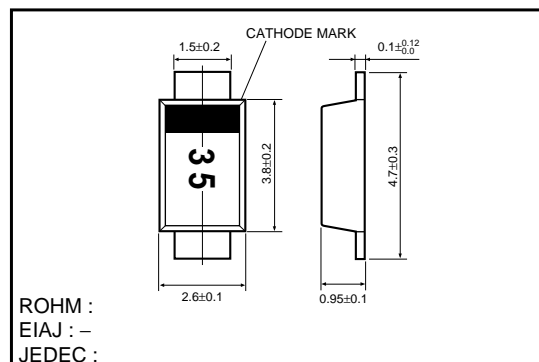
●Features

- 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	μA	$V_R=40\text{V}$

Diodes

●Electrical characteristic curves (Ta=25°C)

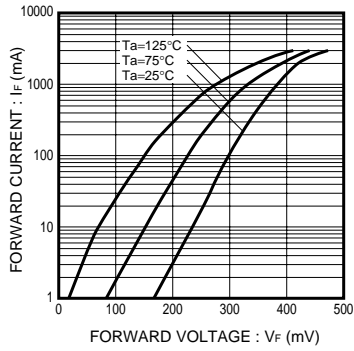


Fig.1 Forward Temperature Characteristics

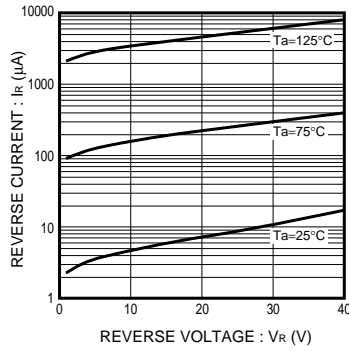


Fig.2 Reverse Temperature Characteristics

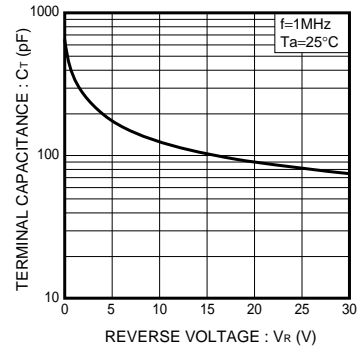


Fig.3 Capacitance Between Terminals Characteristics

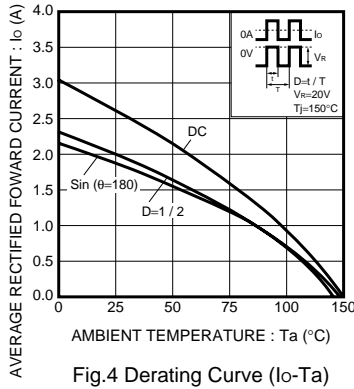


Fig.4 Derating Curve (Io-Ta)

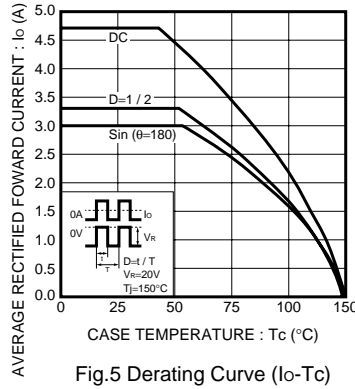


Fig.5 Derating Curve (Io-Tc)

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