

# Schottky Barrier Diode

## RB051M-2Y

**●Applications**

General rectification

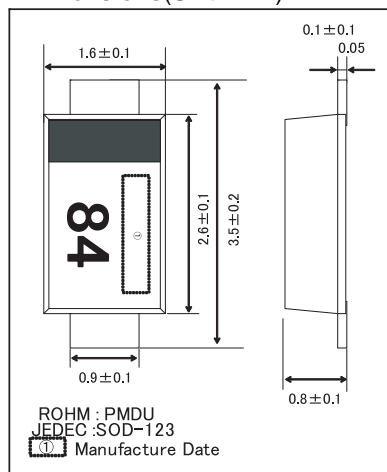
**●Features**

- 1) Small power mold type. (PMDU)
- 2) Ultra Low  $V_F$
- 3) High reliability

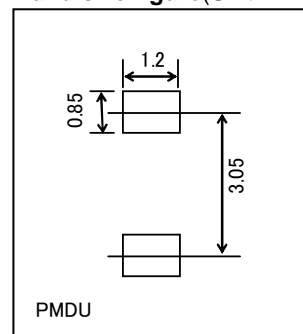
**●Construction**

Silicon epitaxial planer

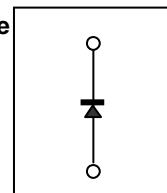
**●Dimensions(Unit : mm)**



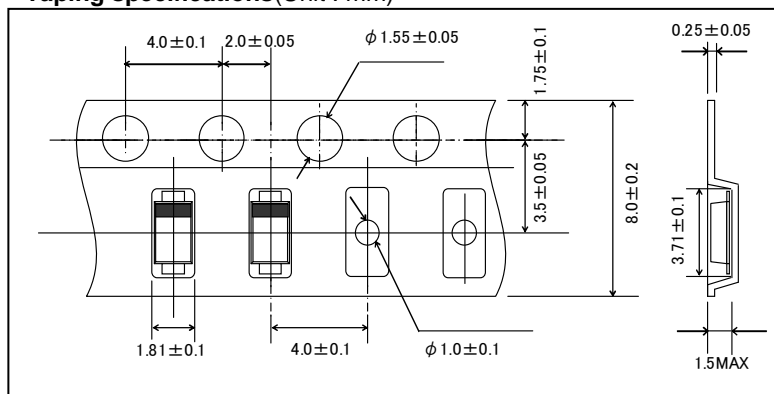
**●Land size figure(Unit : mm)**



**●Structure**



**●Taping specifications(Unit : mm)**



**●Absolute maximum ratings(Ta=25°C)**

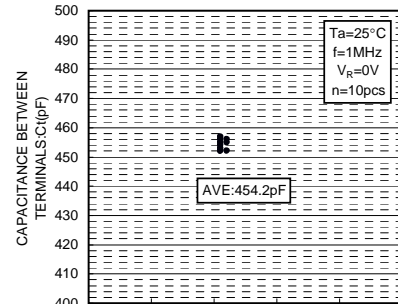
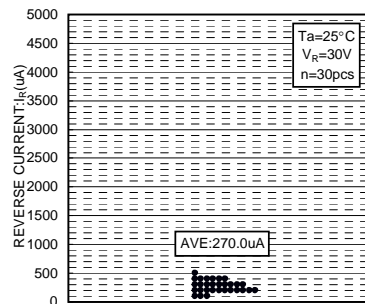
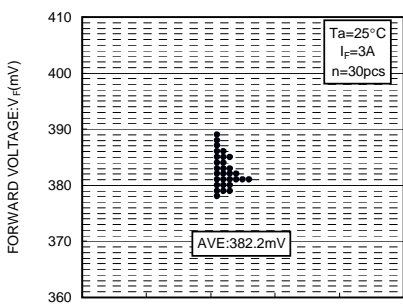
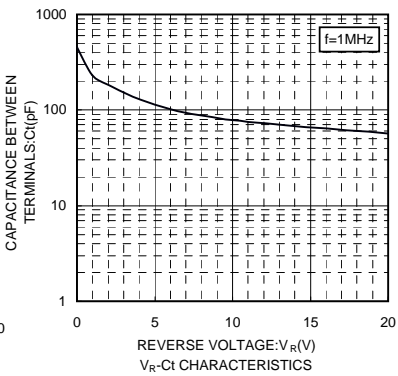
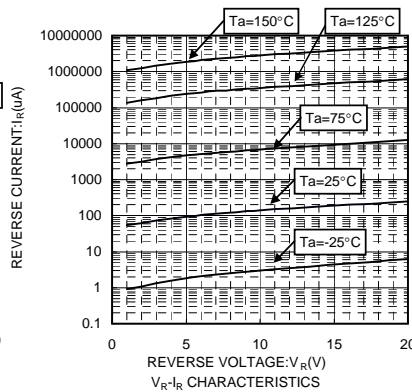
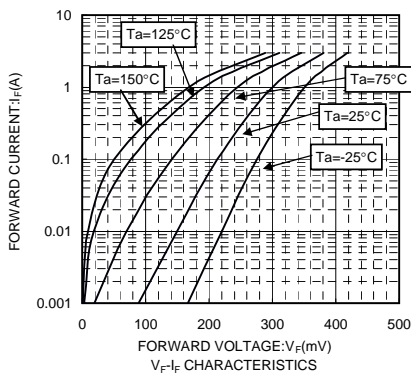
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	$V_{RM}$	20	V
Reverse voltage (DC)	$V_R$	20	V
Average rectified forward current(*1)	$I_o$	3	A
Forward current surge peak (60Hz·1cyc)	$I_{FSM}$	30	A
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-40 to +125	°C

(\*1) Mounting on alumina board.  $T_c=95^\circ\text{C}$  Max.

**●Electrical characteristics(Ta=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.46	V	$I_F=3A$
Reverse current	$I_R$	-	-	0.9	mA	$V_R=20V$

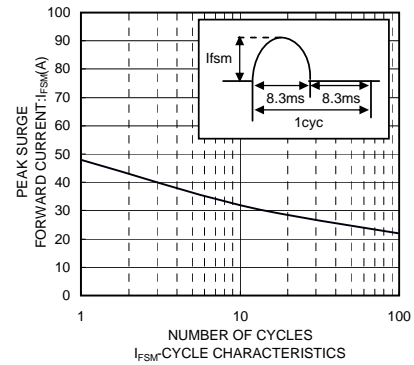
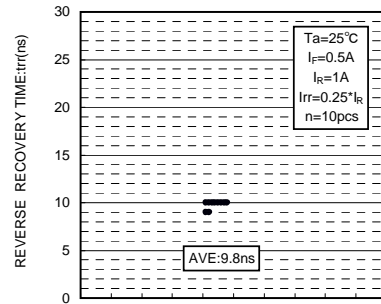
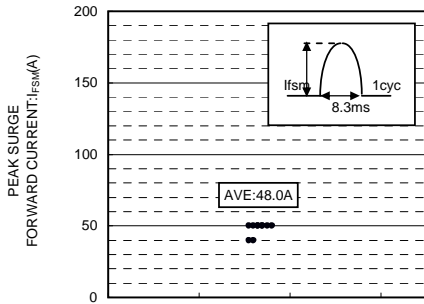
●Electrical characteristic curves



$V_F$  DISPERSION MAP

$I_R$  DISPERSION MAP

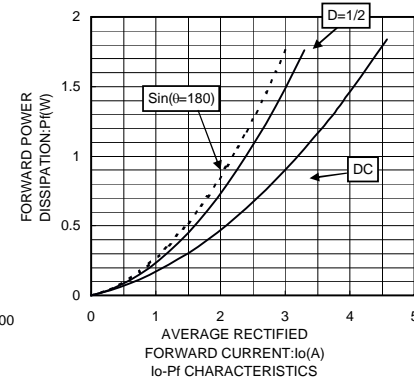
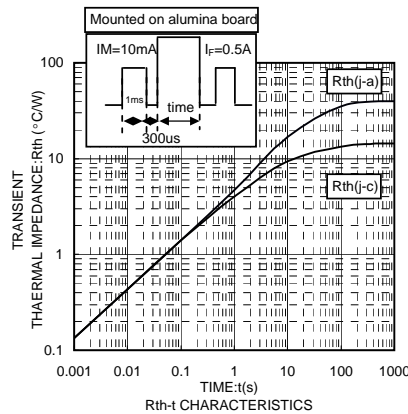
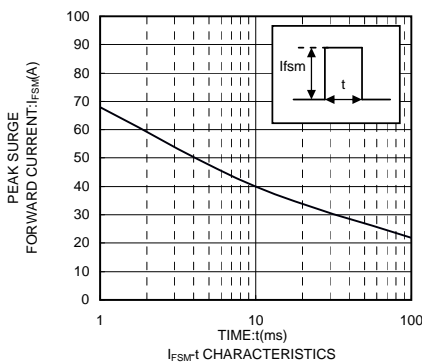
$C_t$  DISPERSION MAP



$I_{FSM}$  DISPERSION MAP

$t_{rr}$  DISPERSION MAP

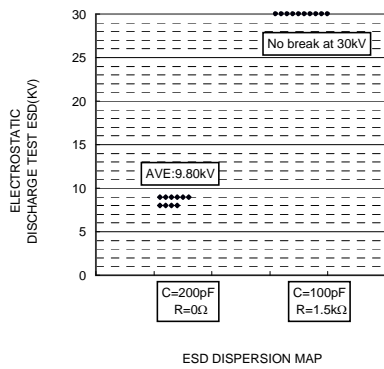
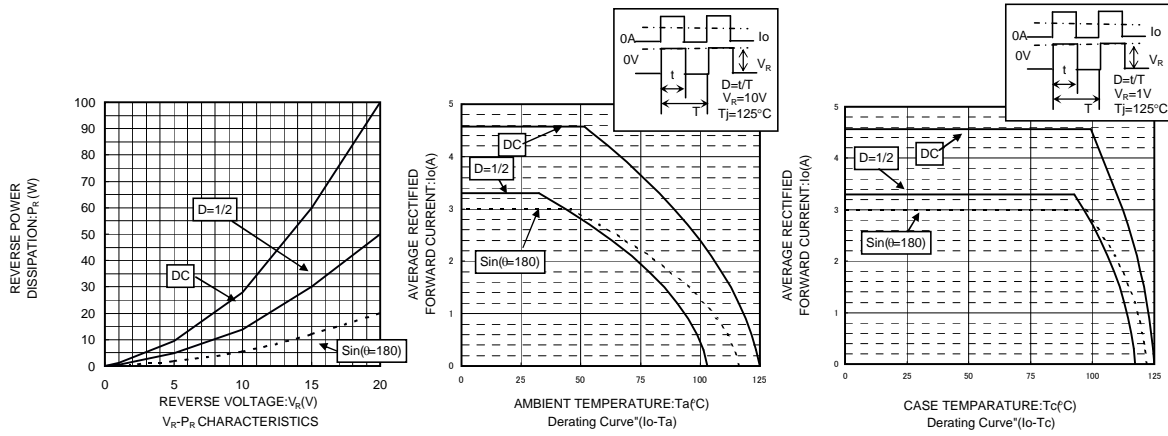
$I_{FSM}$  CYCLE CHARACTERISTICS



$I_{FSM}$ - $t$  CHARACTERISTICS

$R_{th}$ - $t$  CHARACTERISTICS

$I_o$ - $P$  CHARACTERISTICS



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