

Schottky Barrier Diode

RB051M-2Y

● **Applications**

General rectification

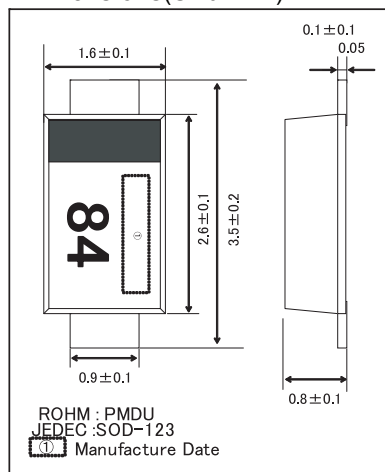
● **Features**

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

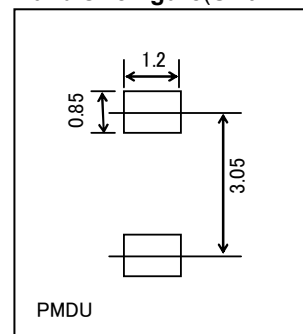
● **Construction**

Silicon epitaxial planar

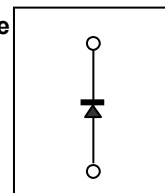
● **Dimensions**(Unit : mm)



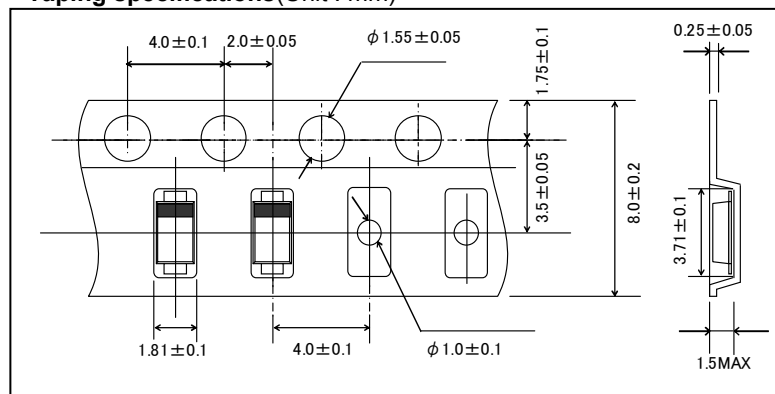
● **Land size figure**(Unit : mm)



● **Structure**



● **Taping specifications**(Unit : mm)



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

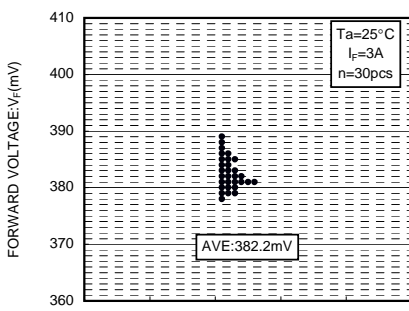
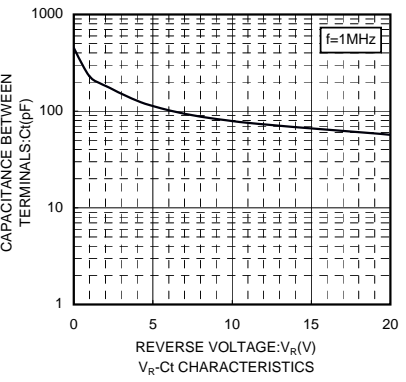
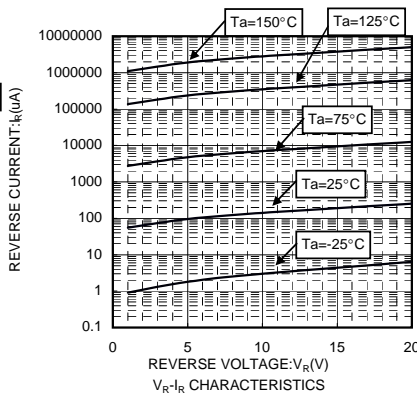
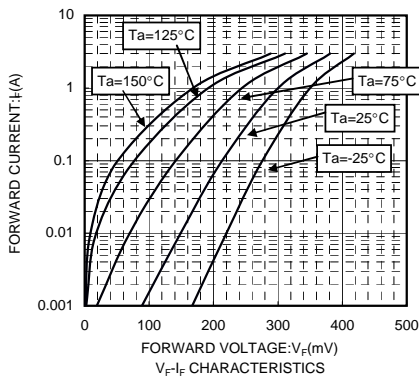
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	V_{RM}	20	V
Reverse voltage (DC)	V_R	20	V
Average rectified forward current(*1)	I_o	3	A
Forward current surge peak (60Hz·1cyc)	I_{FSM}	30	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

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

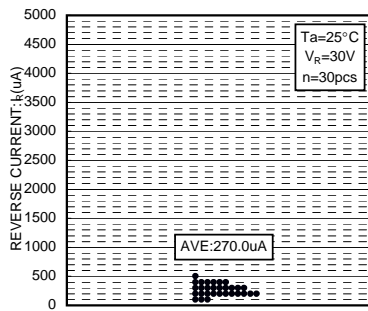
● **Electrical characteristics**($T_a=25^\circ\text{C}$)

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

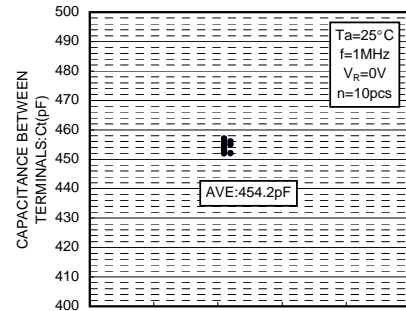
●Electrical characteristic curves



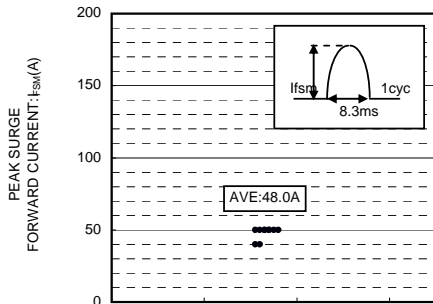
V_f DISPERSION MAP



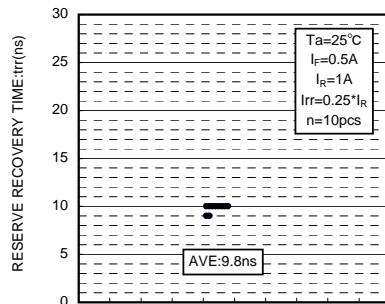
I_r DISPERSION MAP



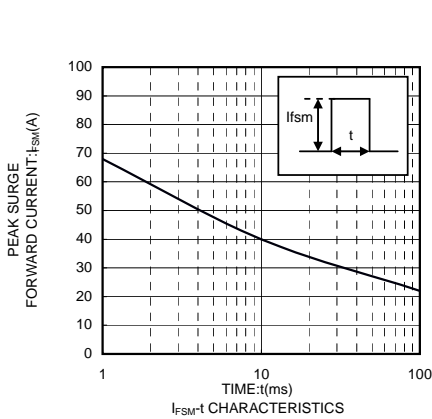
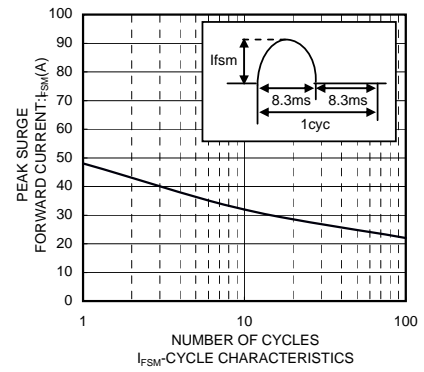
C_t DISPERSION MAP



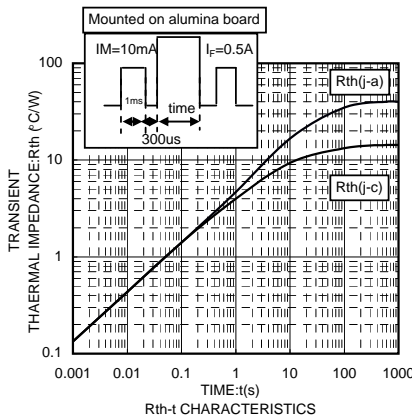
I_{fsm} DISPERSION MAP



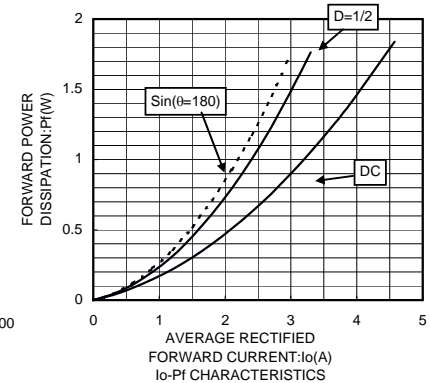
t_{rr} DISPERSION MAP



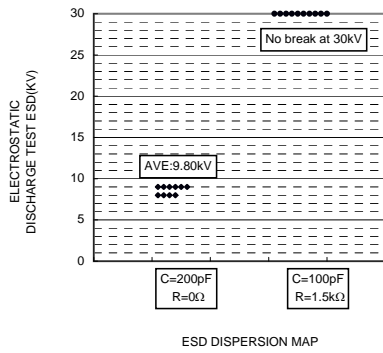
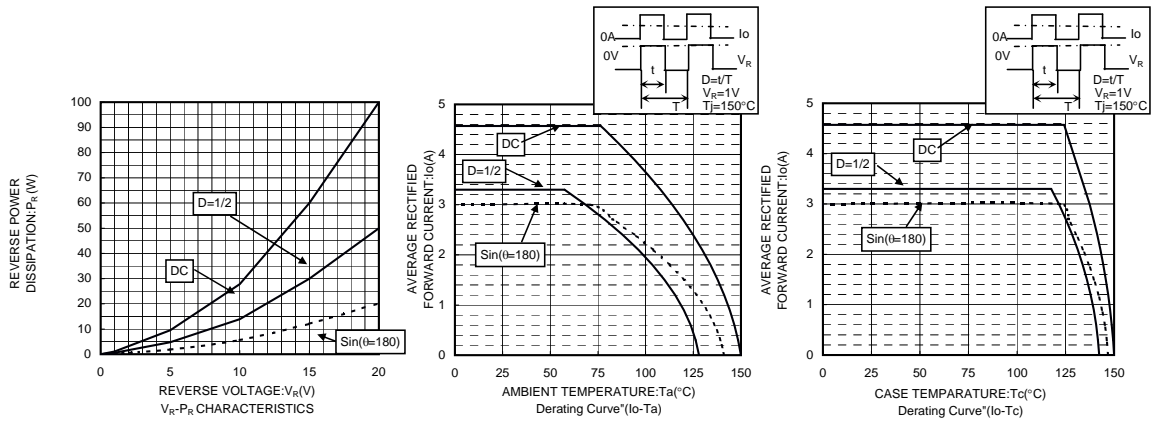
$I_{fsm} = t$ CHARACTERISTICS



$R_{th} = t$ CHARACTERISTICS



$I_o = P_f$ CHARACTERISTICS



Notes

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