

# Schottky Barrier Diode

## RB056L-40

● **Applications**

General rectification

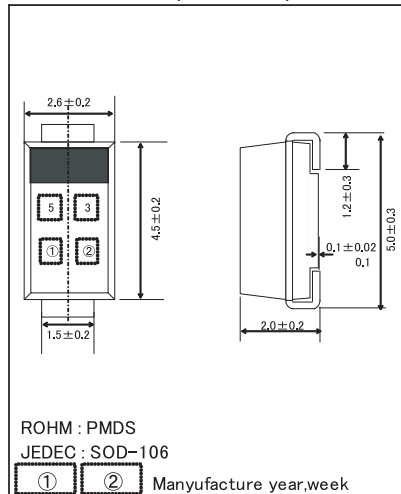
● **Features**

- 1) Small power mold type.(PMDS)
- 2) Low  $I_R$
- 3) High reliability

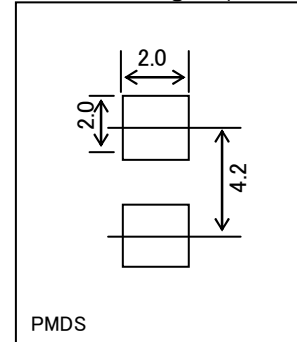
● **Construction**

Silicon epitaxial planer

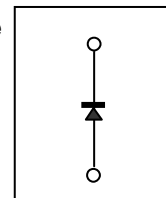
● **Dimensions**(Unit : mm)



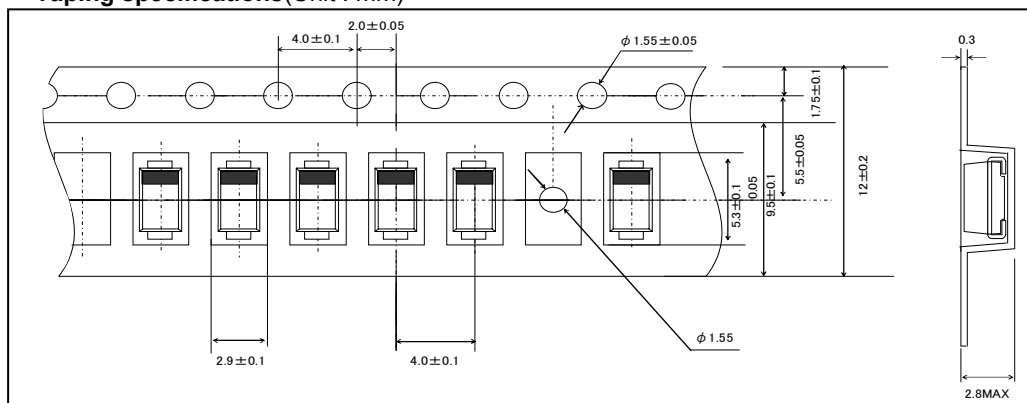
● **Land size figure**(Unit : mm)



● **Structure**



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



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

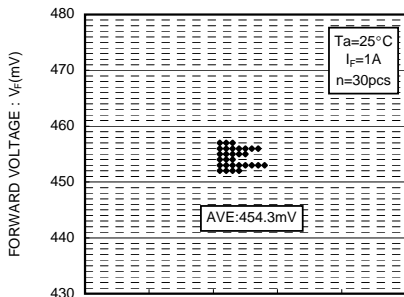
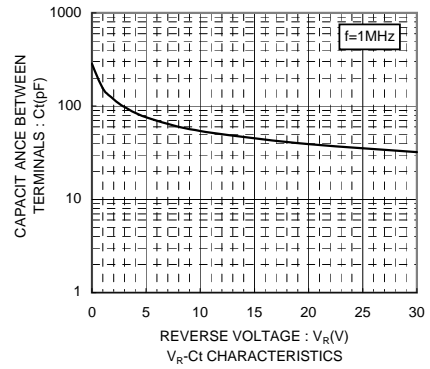
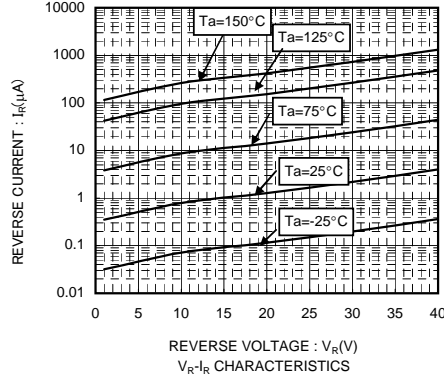
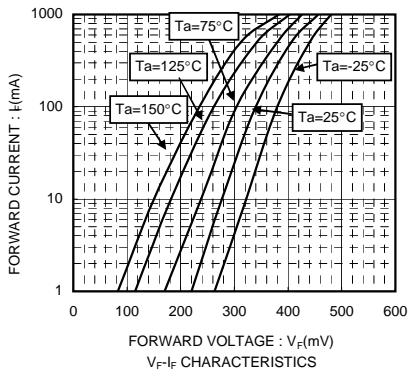
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	$V_{RM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current (*1)	$I_O$	3	A
Forward current surge peak (60Hz / 1cyc)	$I_{FSM}$	70	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-40to+150	°C

(\*1) Mounting on epoxi board. (Tc=63°C MAX.)

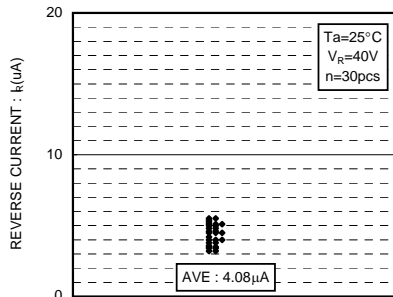
● **Electrical characteristics** (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_{F1}$	-	-	0.67	V	$I_F=3.0A$
	$V_{F2}$	-	-	0.58	V	$I_F=2.0A$
Reverse current	$I_R$	-	-	50	μA	$V_R=40V$

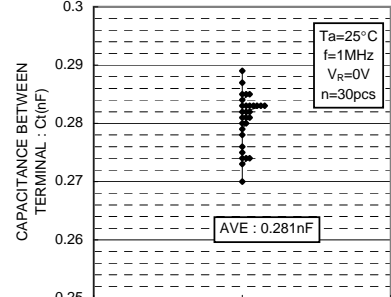
●Electrical characteristics curves



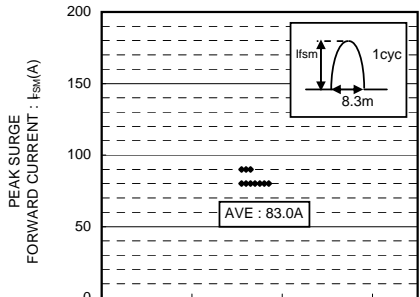
$V_F$  DISPERSION MAP



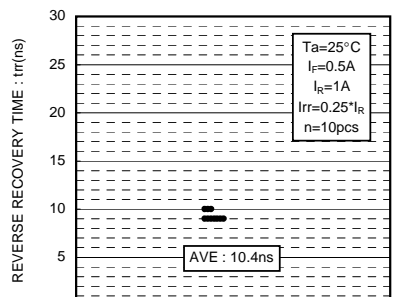
$I_R$  DISPERSION MAP



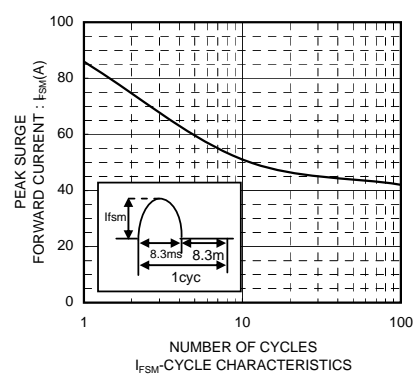
$C_t$  DISPERSION MAP



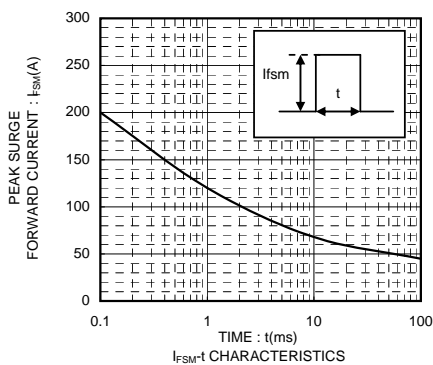
$I_{FSM}$  DISPERSION MAP



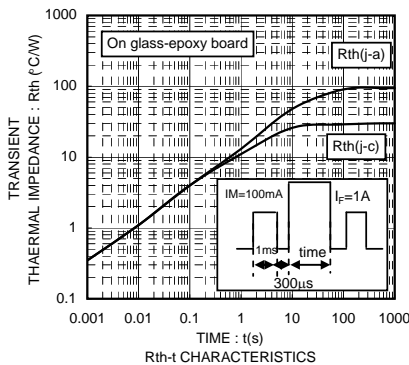
$t_{rr}$  DISPERSION MAP



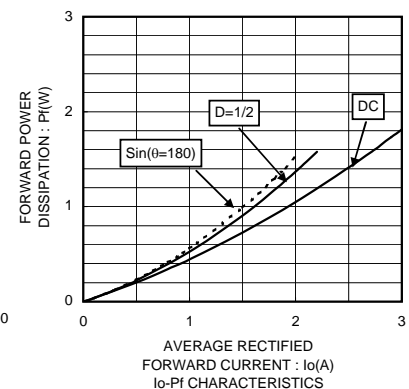
$I_{FSM}$ -CYCLE CHARACTERISTICS



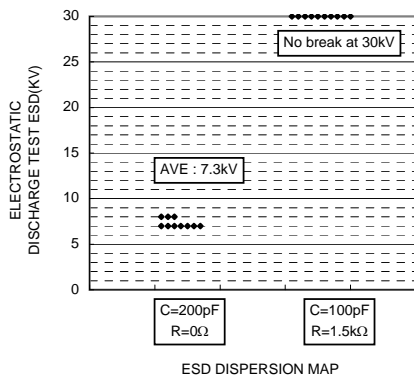
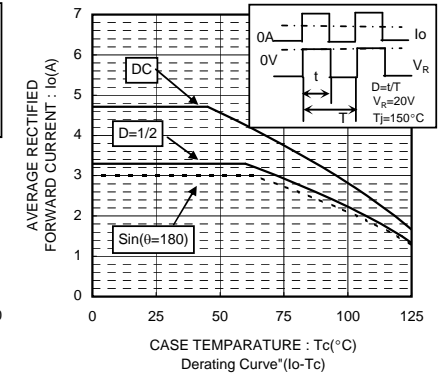
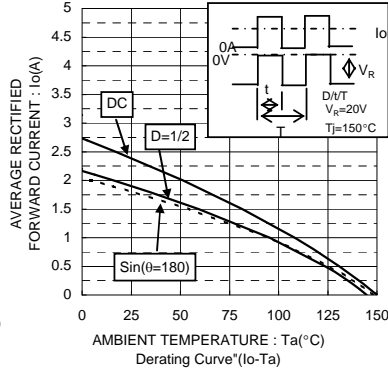
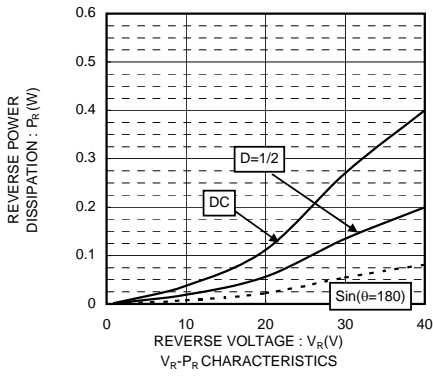
$I_{FSM}$ - $t$  CHARACTERISTICS



$R_{th}$ - $t$  CHARACTERISTICS



$I_{fo}$ - $P_f$  CHARACTERISTICS



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