

# Schottky barrier diode

## RB160M-40

### ●Applications

General rectification

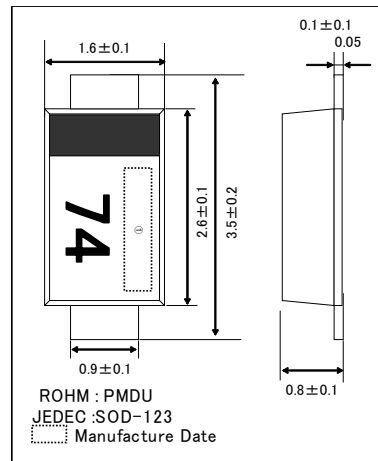
### ●Features

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

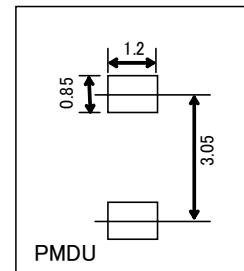
### ●Construction

Silicon epitaxial planar

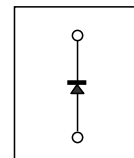
### ●Dimensions (Unit : mm)



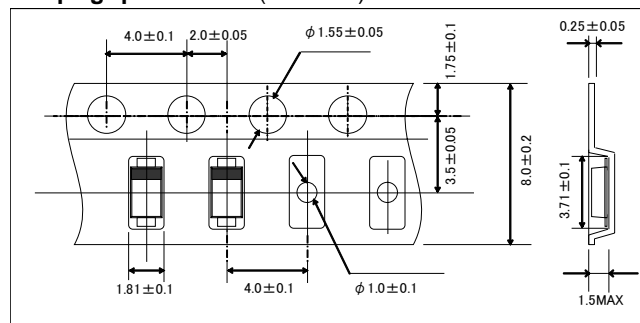
### ●Land size figure (Unit : mm)



### ●Structure



### ●Taping specifications (Unit : mm)



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

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	$I_o$	1	A
Forward current surge peak (60Hz·1 cyc)	$I_{FSM}$	30	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +150	$^\circ\text{C}$

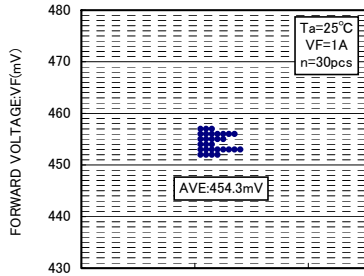
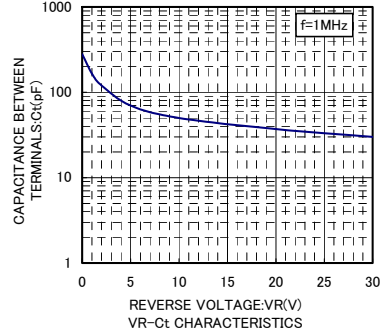
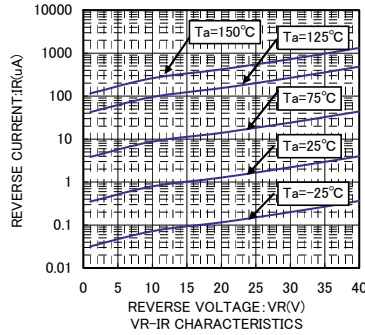
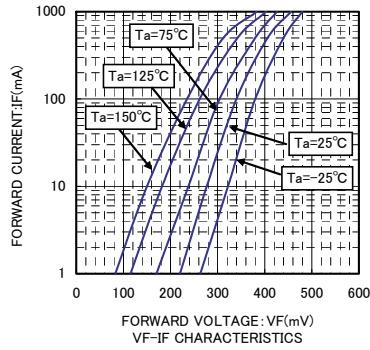
(\*1) Mounted on epoxy board. 180°Half sine wave

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

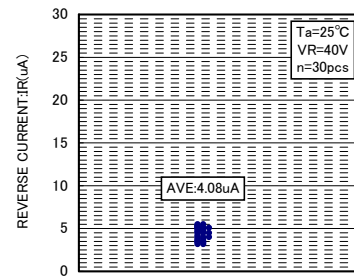
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.46	0.51	V	$I_F=1.0\text{A}$
Reverse current	$I_R$	-	4.0	30	$\mu\text{A}$	$V_R=40\text{V}$

Diodes

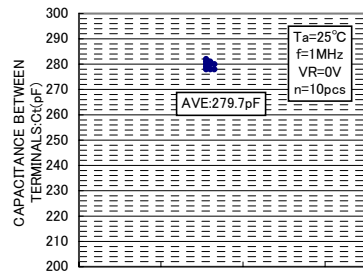
●Electrical characteristic curves (Ta=25°C)



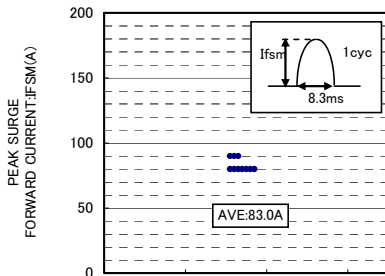
VF DISPERSION MAP



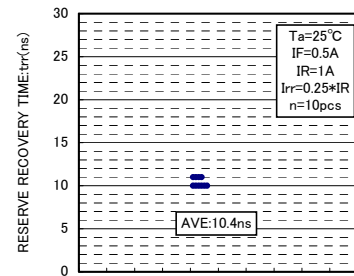
IR DISPERSION MAP



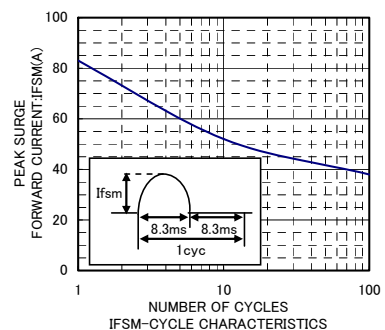
Ct DISPERSION MAP



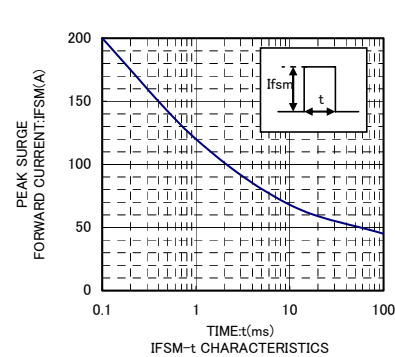
IFSM DISRESION MAP



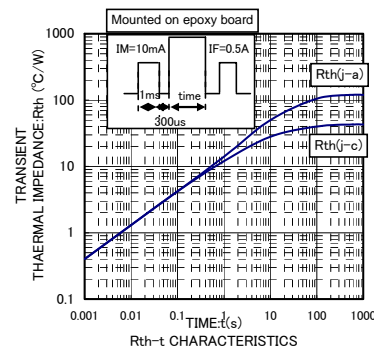
trr DISPERSION MAP



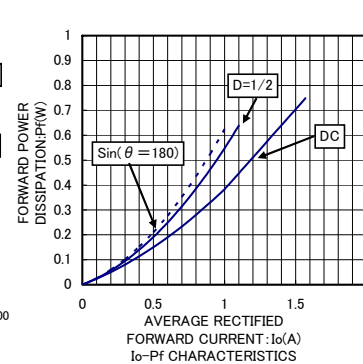
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

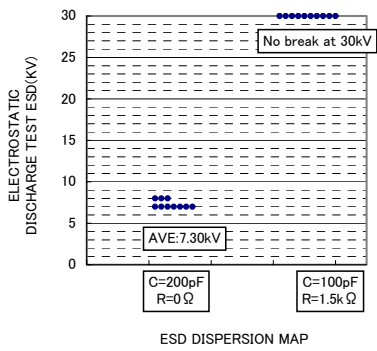
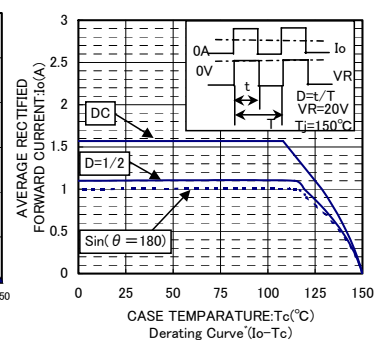
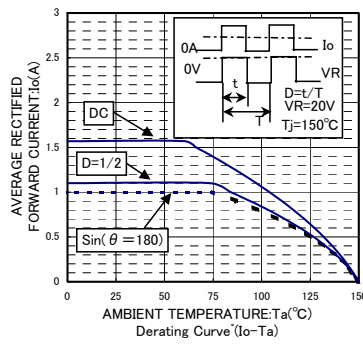
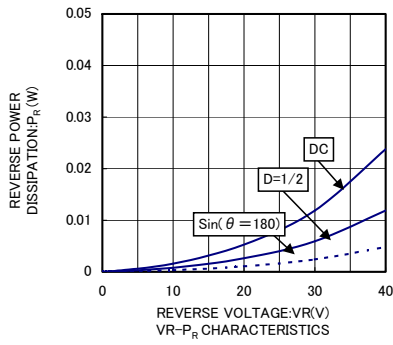


Rth-t CHARACTERISTICS



Io-PF CHARACTERISTICS

Diodes



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