

# Schottky barrier diode

## RB160M-40

### ●Application

Low  $V_F$  schottky barrier diode  
For switching power supplies  
Battery protection against reversal current

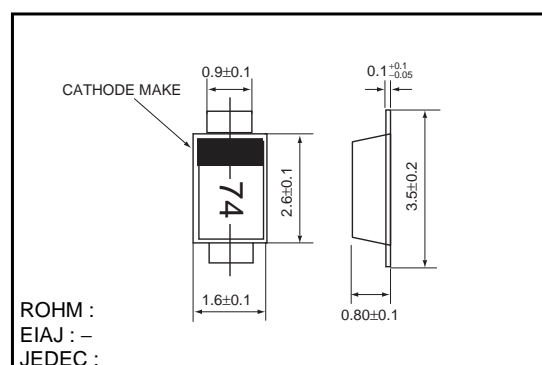
### ●Features

- 1) Small surface mounting type. (PMDU (2616) )
- 2) High reliability.
- 3) Low  $V_F$  ( $V_F=0.46V$  at 1A).

### ●Structure

Silicon Epitaxial Planer

### ●External dimensions (Unit : mm)



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

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 / 1cyc.)	$I_{FSM}$	30	A
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-40 to 150	$^\circ C$

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

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

## Diodes

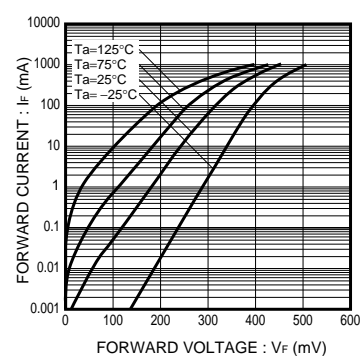
●Electrical characteristic curves ( $T_a=25^\circ\text{C}$ )

Fig.1 Forward Temperature Characteristics

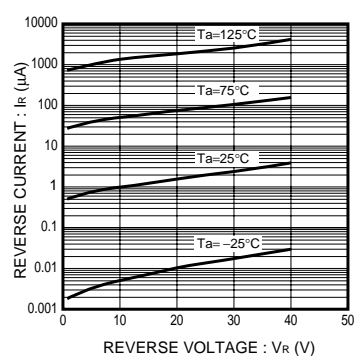


Fig.2 Reverse Temperature Characteristics

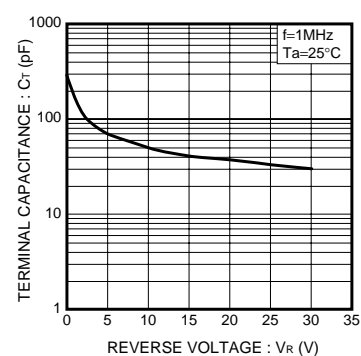


Fig.3 Capacitance Between Terminals Characteristics

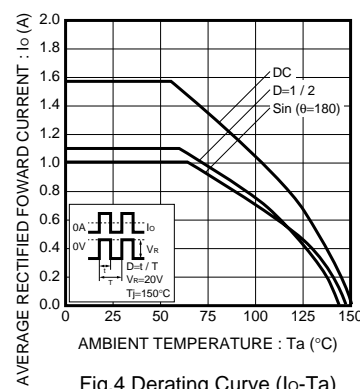
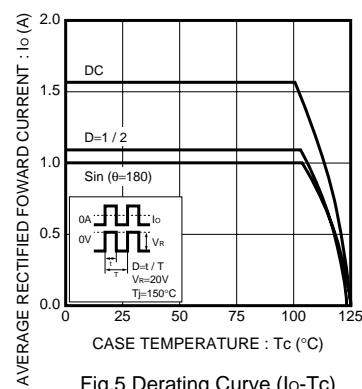
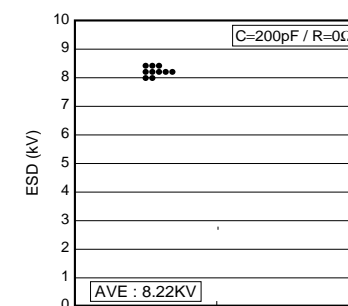
Fig.4 Derating Curve ( $I_o$ - $T_a$ )Fig.5 Derating Curve ( $I_o$ - $T_c$ )

Fig.6 ESD

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