

# Schottky barrier diode

## RB500V-40

### ●Applications

Low current rectification

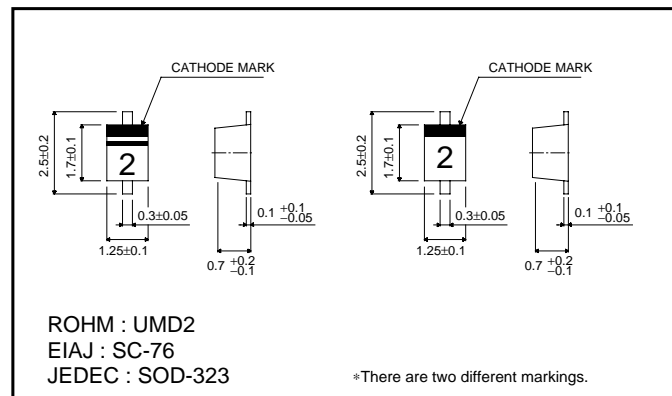
### ●Features

- 1) Small surface mounting type. (UMD2)
- 2) Low  $I_R$ . ( $I_R=70\text{nA}$  Typ.)
- 3) High reliability.

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units : mm)



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

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	45	V
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_o$	0.1	A
Peak forward surge current*	$I_{FSM}$	1	A
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40~+125	$^\circ\text{C}$

\* 60Hz for 1  $\mu\text{s}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.45	V	$I_F=10\text{mA}$
Reverse current	$I_R$	-	-	1	$\mu\text{A}$	$V_R=10\text{V}$
Capacitance between terminals	$C_T$	-	6.0	-	pF	$V_R=10\text{V}$ , $f=1\text{MHz}$

Note) ESD sensitive product handling required.

Diodes

●Electrical characteristic curves (Ta = 25°C)

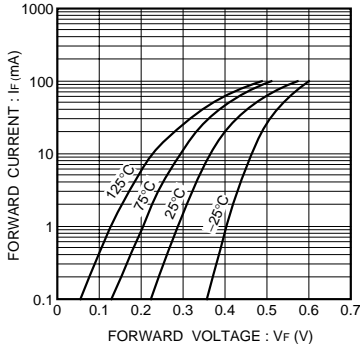


Fig. 1 Forward characteristics

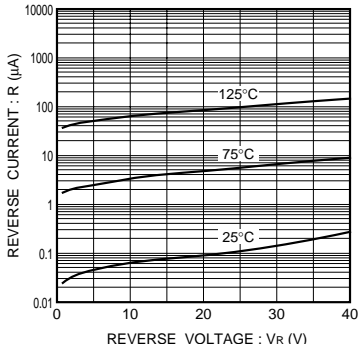


Fig. 2 Reverse characteristics

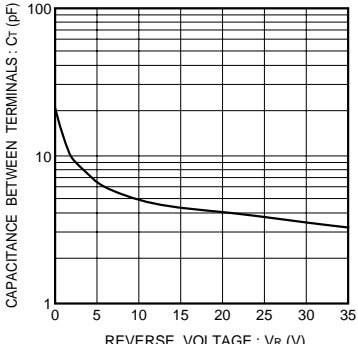


Fig. 3 Capacitance between terminals characteristics

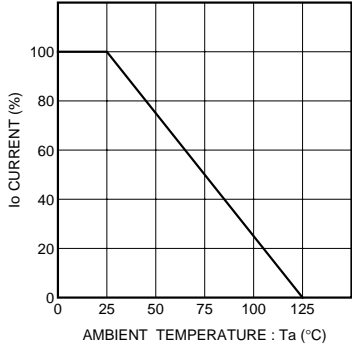


Fig. 4 Derating curve (mounting on glass epoxy PCBs)