

# Schottky barrier diode

## RB501V-40

### ●Applications

Low current rectification

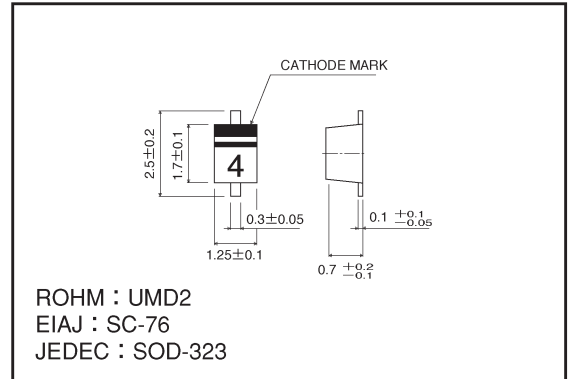
### ●Features

- 1) Small surface mounting type. (UMD2)
- 2) High reliability.
- 3) Low reverse current and low forward voltage.

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Units: mm)



### ●Absolute maximum ratings (Ta = 25°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	°C
Storage temperature	$T_{stg}$	-40~+125	°C

\* 60 Hz for 1  $\mu$ s

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_{F1}$	—	0.43	0.55	V	$I_F=100mA$
Forward voltage	$V_{F2}$	—	0.27	0.34	V	$I_F=10mA$
Reverse current	$I_R$	—	2.0	30	$\mu A$	$V_R=10V$
Capacitance between terminals	$C_T$	—	6.0	—	pF	$V_R=10V, f=1MHz$

\* ESD sensitive product handling required.

● Electrical characteristic curves (Ta = 25°C unless specified otherwise)

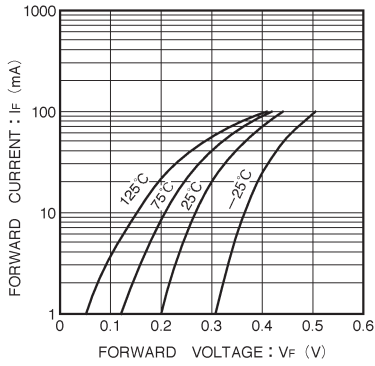


Fig. 1 Forward characteristics

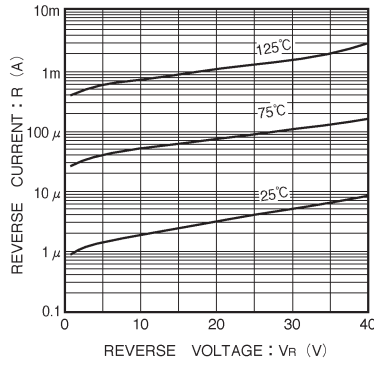


Fig. 2 Reverse characteristics

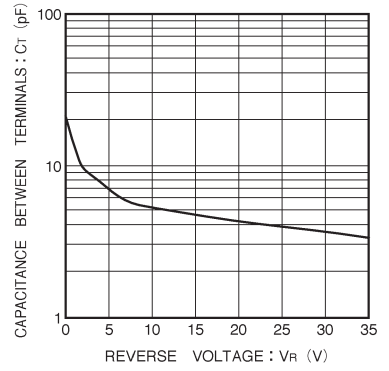


Fig. 3 Capacitance between terminals characteristics

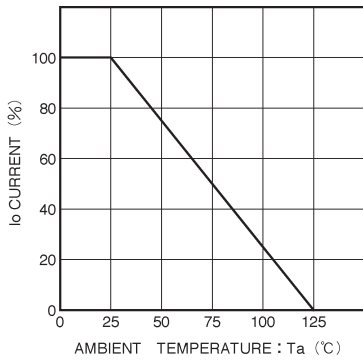


Fig. 4 Derating curve (mounting on glass epoxy PCBs)