

Schottky barrier diode

RB500V-40

●Applications

Low current rectification

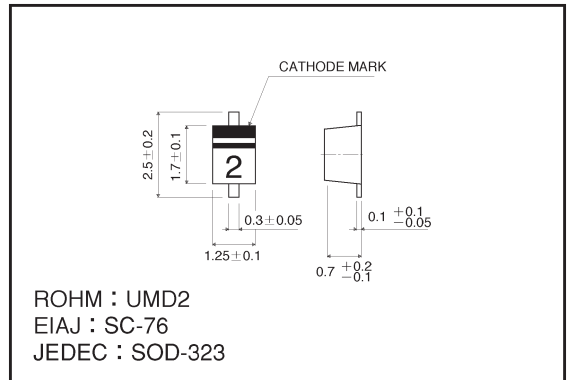
●Features

- 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 μ s

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	—	0.37	0.45	V	$I_F = 10\text{mA}$
Reverse current	I_R	—	0.07	1	μA	$V_R = 10\text{V}$
Capacitance between terminals	C_T	—	6.0	—	pF	$V_R = 10\text{V}$, $f = 1\text{MHz}$

* ESD sensitive product handling required.

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

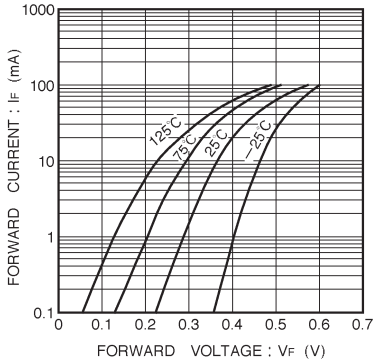


Fig. 1 Forward characteristics

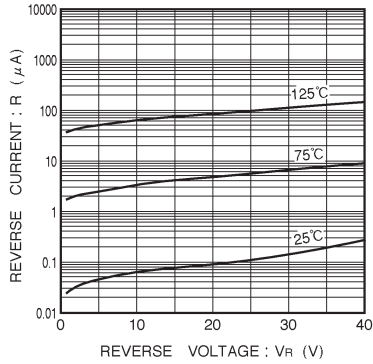


Fig. 2 Reverse characteristics

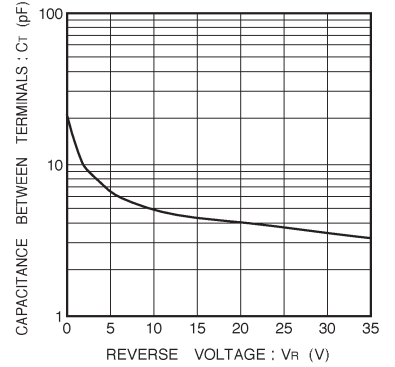


Fig. 3 Capacitance between terminals characteristics

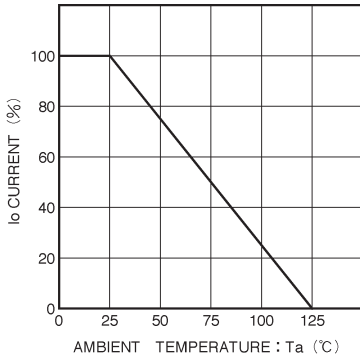


Fig. 4 Derating curve (mounting on glass epoxy PCBs)