

Schottky barrier diode

RB501V-40

●Applications

Low current rectification

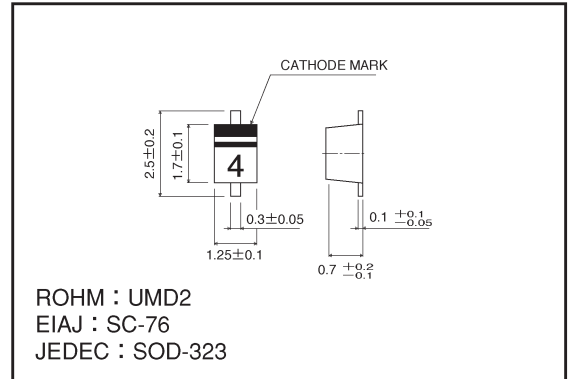
●Features

- 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 μ 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	μA	$V_R=10V$
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)

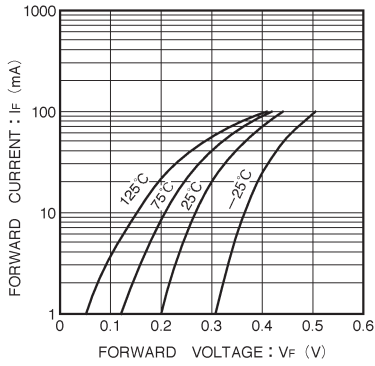


Fig. 1 Forward characteristics

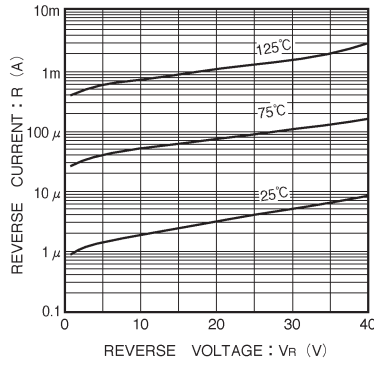


Fig. 2 Reverse characteristics

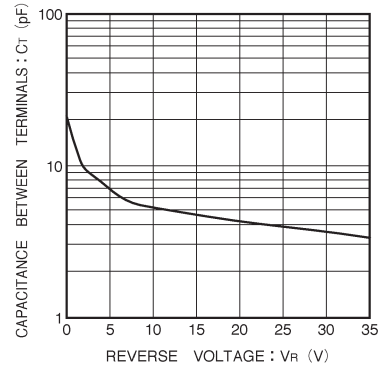


Fig. 3 Capacitance between terminals characteristics

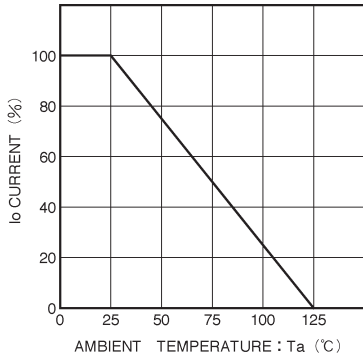


Fig. 4 Derating curve (mounting on glass epoxy PCBs)