

Schottky barrier diode

RB500V-40

●Applications

Low current rectification

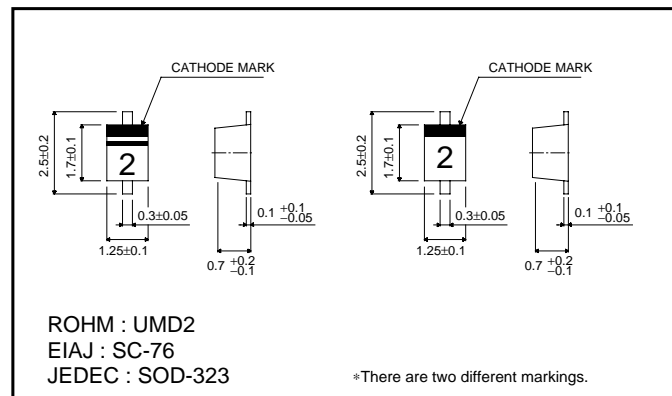
●Features

- 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}	$-40\sim+125$	$^\circ\text{C}$

* 60Hz for 1 μs

●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	μA	$V_R=10\text{V}$
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)

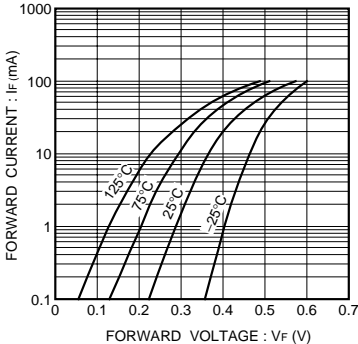


Fig. 1 Forward characteristics

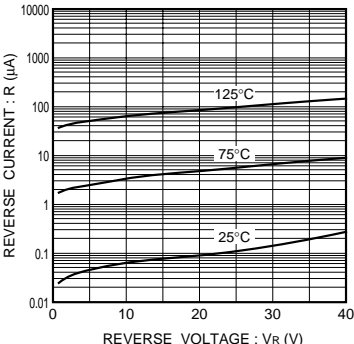


Fig. 2 Reverse characteristics

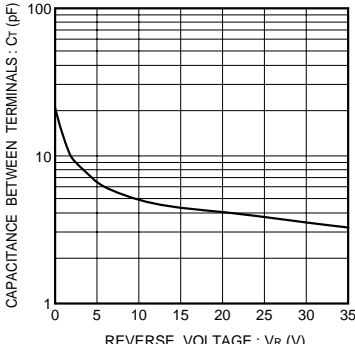


Fig. 3 Capacitance between terminals characteristics

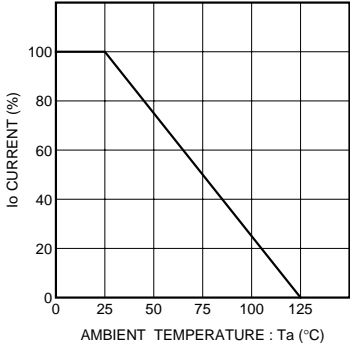


Fig. 4 Derating curve (mounting on glass epoxy PCBs)