

Schottky barrier diode

RB451F

● Applications

Low power rectification

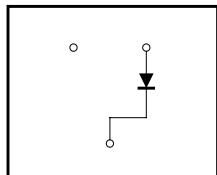
● Features

- 1) Small surface mounting type. (UMD3)
- 2) Low V_F . ($V_F=0.45V$ Typ. at 100mA)
- 3) High reliability.

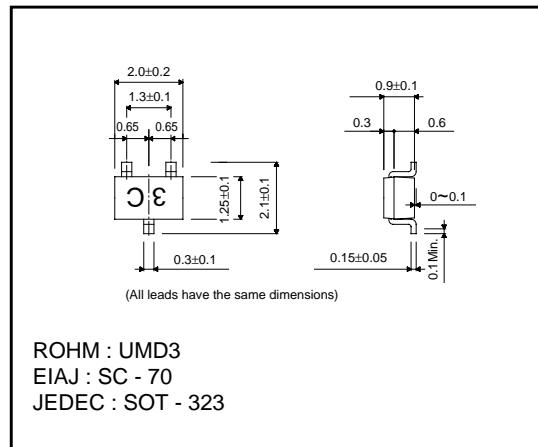
● Construction

Silicon epitaxial planar

● Circuit



● External dimensions (Units : mm)



● Absolute maximum ratings ($T_a = 25^\circ C$)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	40	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	$^\circ C$
Storage temperature	T_{stg}	-40~+125	$^\circ C$

* 60Hz for 1 $\text{m}\Omega$

● Electrical characteristics ($T_a = 25^\circ C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{F1}	—	—	0.55	V	$I_F=100\text{mA}$
	V_{F2}	—	—	0.34	V	$I_F=10\text{mA}$
Reverse current	I_R	—	—	30	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

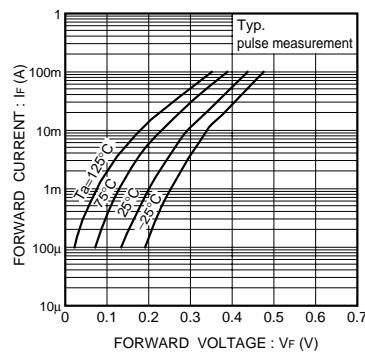
● Electrical characteristic curves ($T_a = 25^\circ\text{C}$)

Fig. 1 Forward characteristics

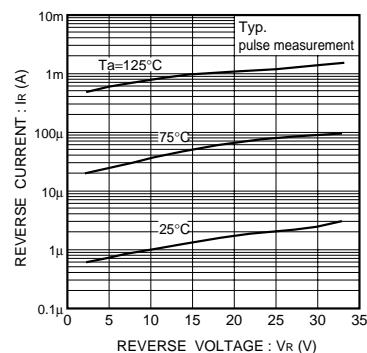


Fig. 2 Reverse characteristics

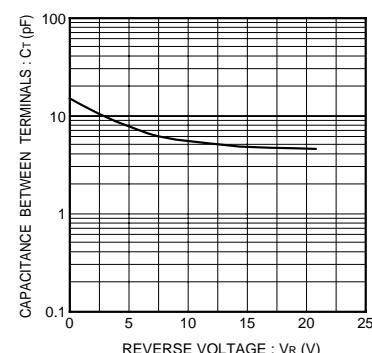
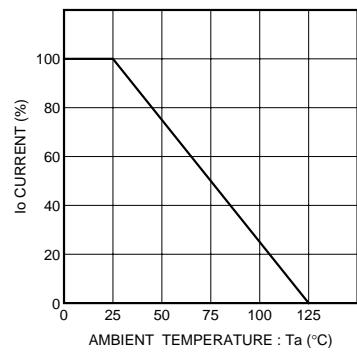


Fig. 3 Capacitance between terminals characteristics

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