

PIN diode

RN731V

●Applications

VHF / UHF band variable attenuators and AGC

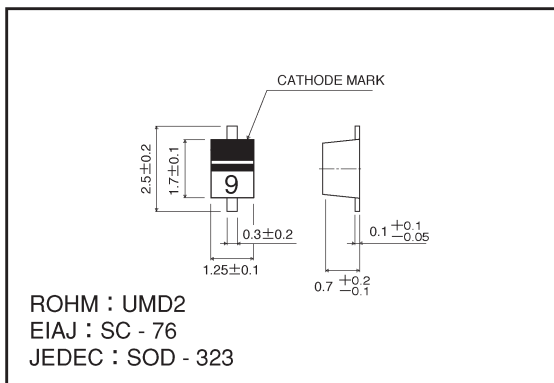
●Features

- 1) Small surface mounting type. (UMD2)
- 2) Low high-frequency forward resistance (r_F) / low capacitance (C_T).
- 3) High reliability.

●Construction

Silicon diffusion junction

●External dimensions (Units: mm)



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

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	50	V
DC forward current	I_F	50	mA
Power dissipation	P_d	100	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	$-55 \sim +125$	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	—	0.93	1.0	V	$I_F = 50\text{mA}$
Reverse current	I_R	—	0.01	100	nA	$V_R = 50\text{V}$
Capacitance between terminals	C_T	—	0.23	0.4	pF	$V_R = 35\text{V}$, $f = 1\text{MHz}$
Forward operating resistance	r_F	—	3.5	7	Ω	$I_F = 10\text{mA}$, $f = 100\text{MHz}$

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

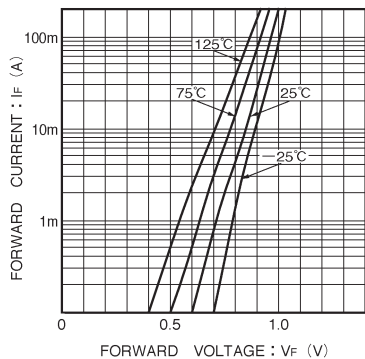


Fig. 1 Forward characteristics

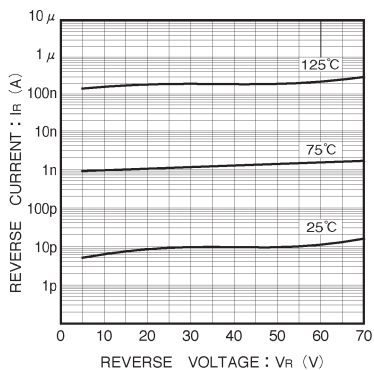


Fig. 2 Reverse characteristics

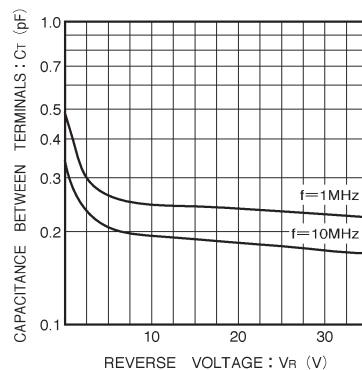


Fig. 3 Capacitance between terminals characteristics (I)

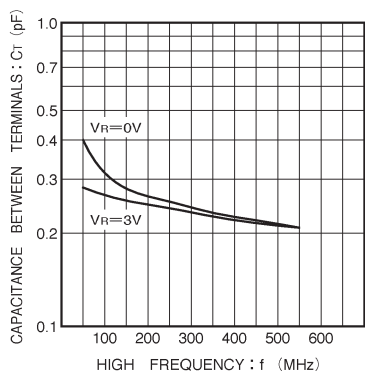


Fig. 4 Capacitance between terminals characteristics (II)

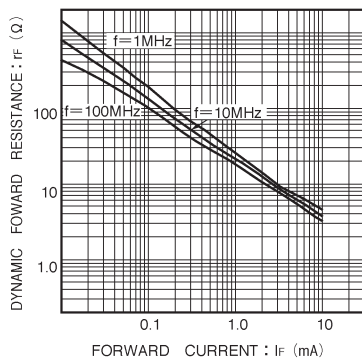


Fig. 5 High frequency characteristics

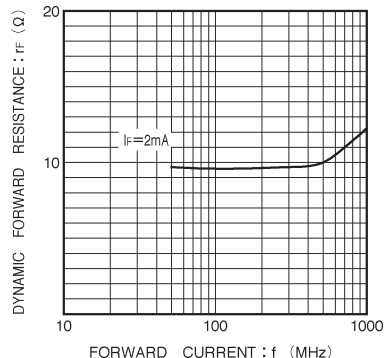


Fig. 6 Forward operating resistance characteristics

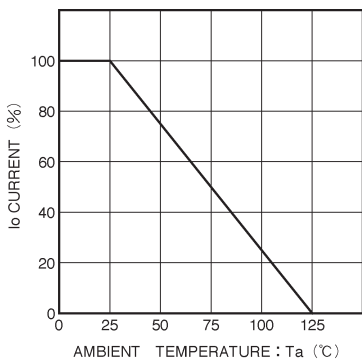


Fig. 7 Derating curve
(mounting on glass epoxy PCBs)