

PIN diode

RN731V

●Applications

VHF/UHF band variable attenuators and AGC.

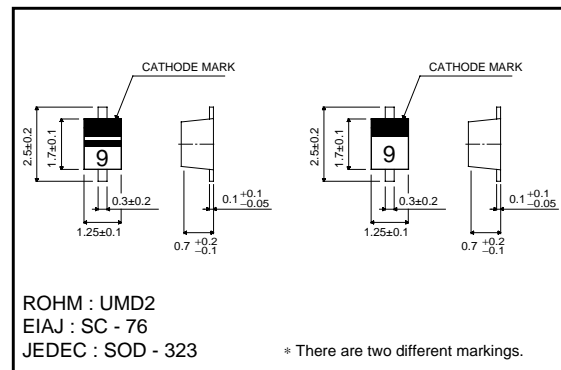
●Features

- 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~+125	$^\circ\text{C}$

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

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

Diodes

●Electrical characteristic curves (Ta=25°C)

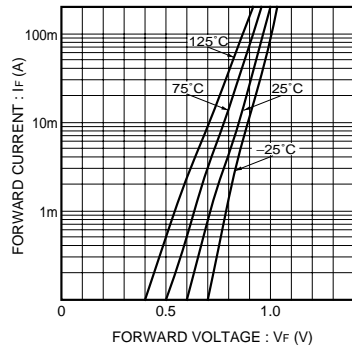


Fig.1 Forward characteristics

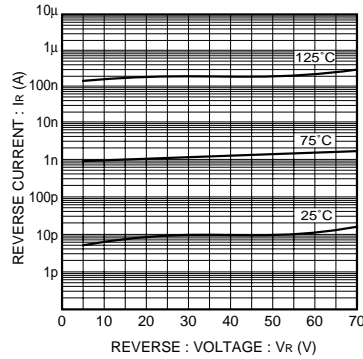


Fig.2 Reverse characteristics

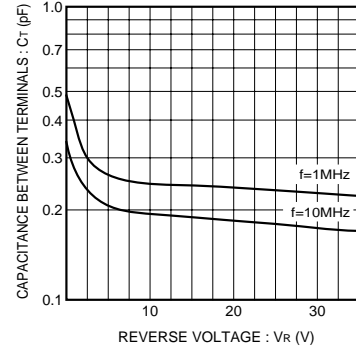


Fig.3 Capacitance between terminals characteristics (I)

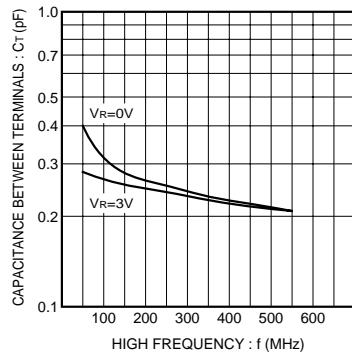


Fig.4 Capacitance between terminals characteristics (II)

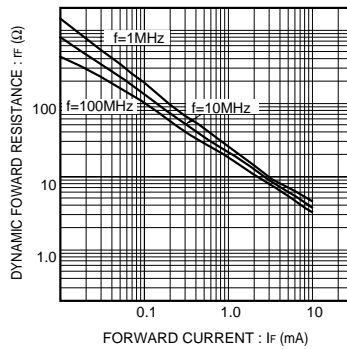


Fig.5 High frequency characteristics

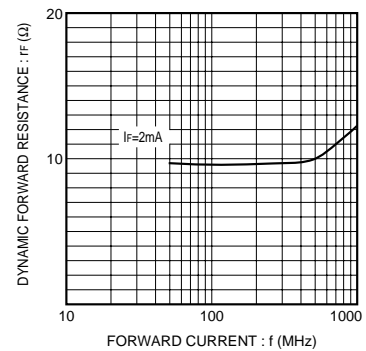


Fig.6 Forward operating resistance characteristics

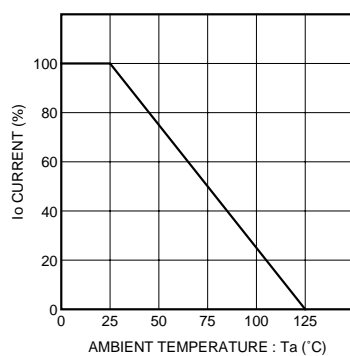


Fig.7 Derating curve (mounting on glass epoxy PCBs)