

# PIN diode

## RN731V

### ●Applications

VHF/UHF band variable attenuators and AGC.

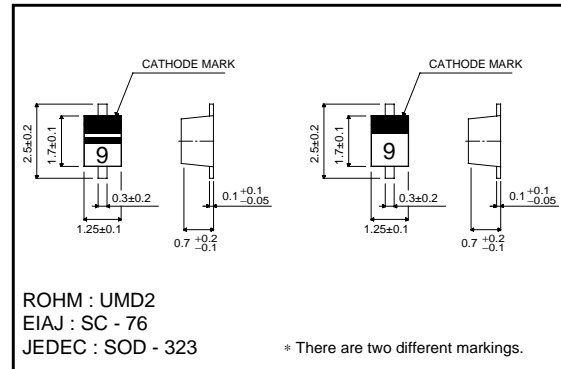
### ●Features

- 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	$\Omega$	$I_F=10\text{mA}$ , $f=100\text{MHz}$

Diodes

●Electrical characteristic curves (Ta=25°C)

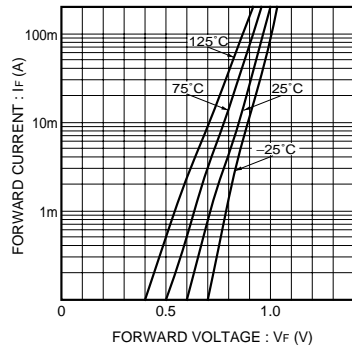


Fig.1 Forward characteristics

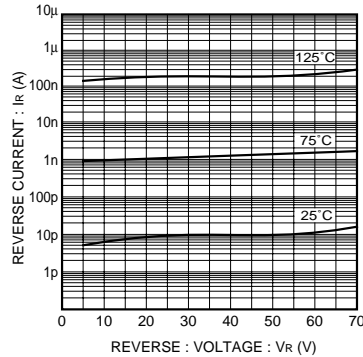


Fig.2 Reverse characteristics

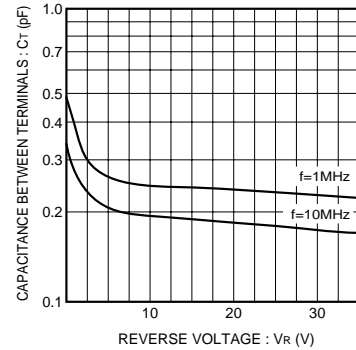


Fig.3 Capacitance between terminals characteristics (I)

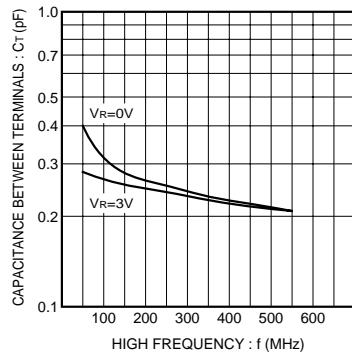


Fig.4 Capacitance between terminals characteristics (II)

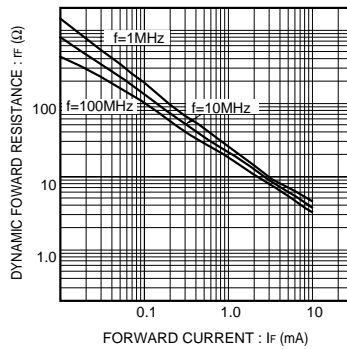


Fig.5 High frequency characteristics

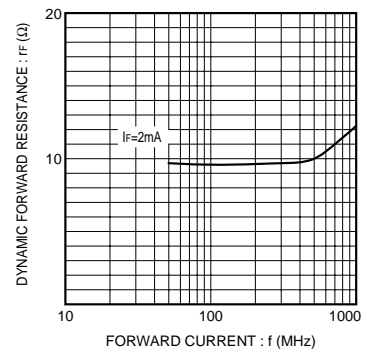


Fig.6 Forward operating resistance characteristics

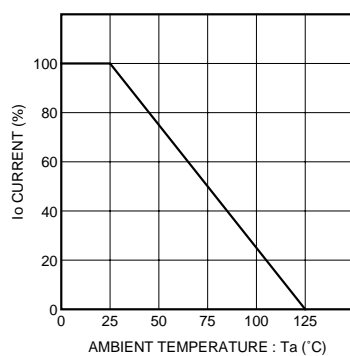


Fig.7 Derating curve (mounting on glass epoxy PCBs)