

# PIN diode

## RN739F / RN739D

### ●Applications

VHF / UHF band variable attenuators and AGC

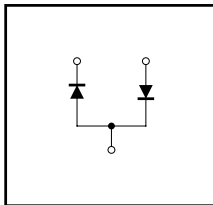
### ●Features

- 1) Multiple diodes in one small surface mount package.  
(UMD3, SMD3)
- 2) Low high-frequency forward resistance ( $r_F$ ) / low capacitance ( $C_T$ ).
- 3) High reliability.

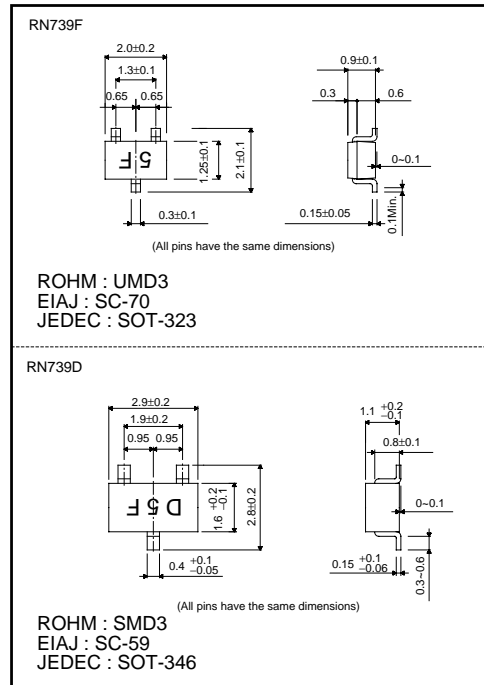
### ●Construction

Silicon diffusion junction

### ●Circuit



### ●External dimensions (Units : mm)



### ●Absolute maximum ratings (Ta = 25°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	°C
Storage temperature	$T_{stg}$	-55~+125	°C

### ●Electrical characteristics (Ta = 25°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)

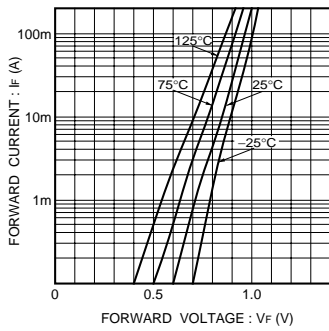


Fig.1 Forward characteristics

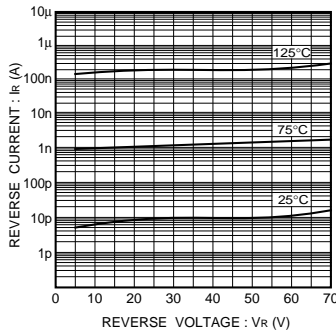


Fig.2 Reverse characteristics

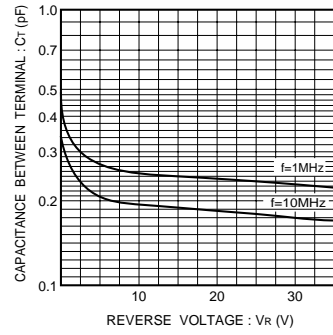


Fig.3 Capacitance between terminals characteristics 1

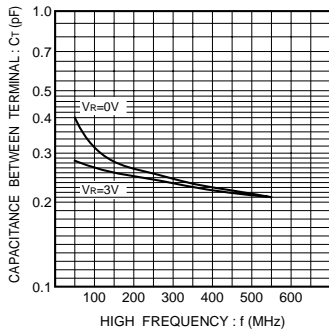


Fig.4 Capacitance between terminals characteristics 2

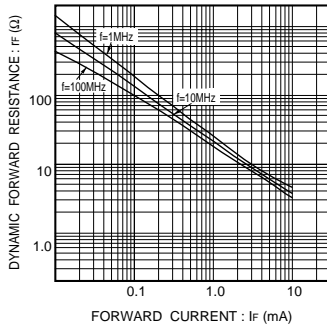


Fig.5 High frequency characteristics

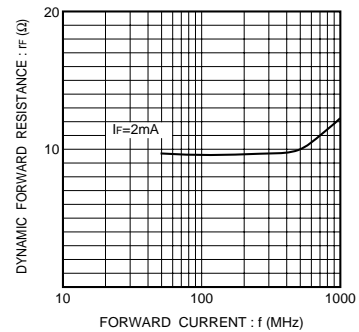


Fig.6 Forward operating resistance characteristics

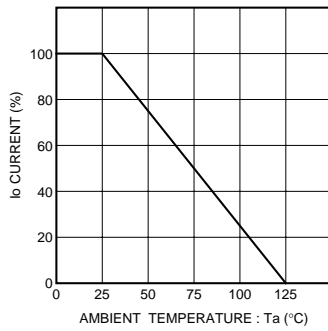


Fig.7 Derating curve (mounting on glass epoxy PCBs)