

# HVD142A

## Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G0428-0200

Rev.2.00

Sep 21, 2005

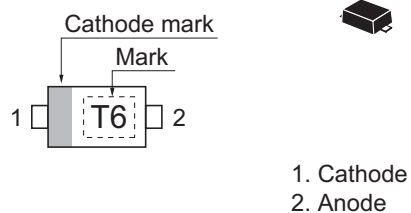
### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ( $C = 0.35 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 1.3 \Omega \text{ max}$ )
- Super small Flat Lead Package (SFP) is suitable for surface mount design.

### Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HVD142A	T6	SFP	PUSF0002ZB-A (SFP)

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Reverse voltage	$V_R$	30	V
Forward current	$I_F$	100	mA
Power dissipation	$P_d$	150	mW
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	100	nA	$V_R = 30\text{ V}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10\text{ mA}$
Capacitance	C	—	—	0.35	pF	$V_R = 1\text{ V}$ , $f = 1\text{ MHz}$
Forward resistance	$r_f$	—	—	1.3	$\Omega$	$I_F = 10\text{ mA}$ , $f = 100\text{ MHz}$
ESD-Capability *1	—	100	—	—	V	C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion ;  $I_R > 100\text{ nA}$  at  $V_R = 30\text{ V}$

2. For SFP package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

## Main Characteristic

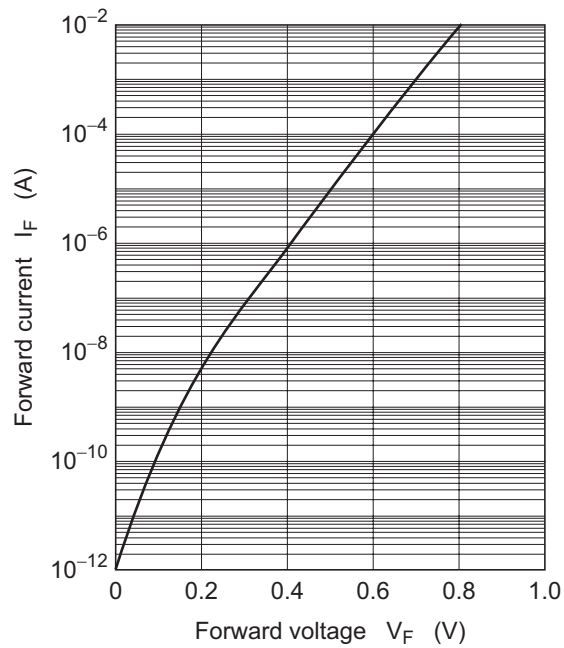


Fig.1 Forward current vs. Forward voltage

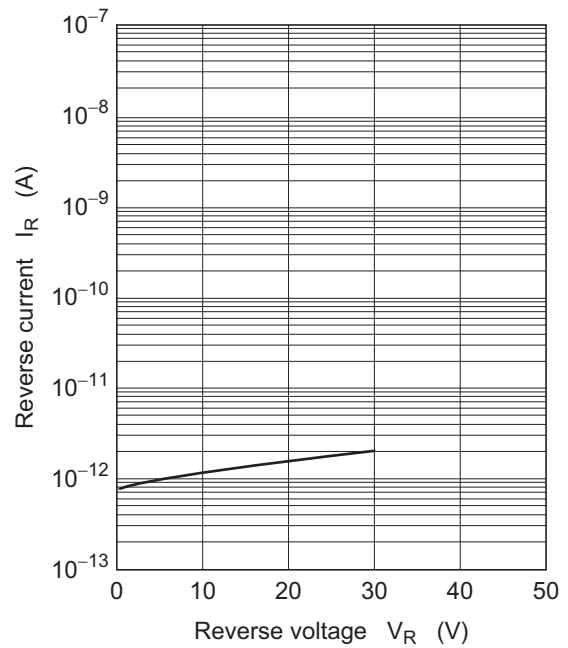


Fig.2 Reverse current vs. Reverse voltage

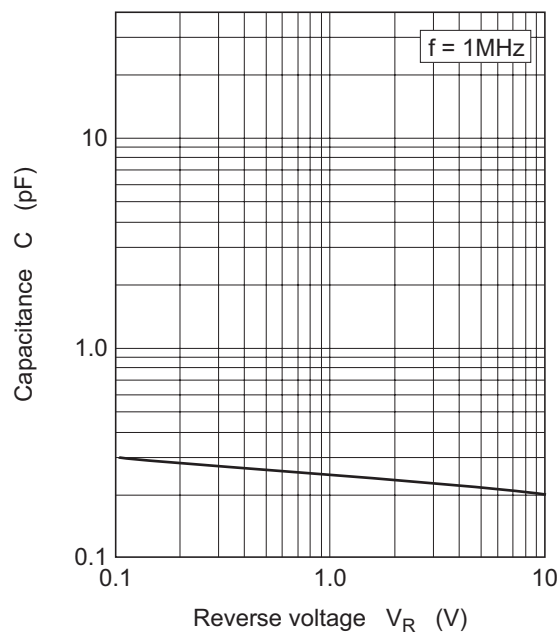


Fig.3 Capacitance vs. Reverse voltage

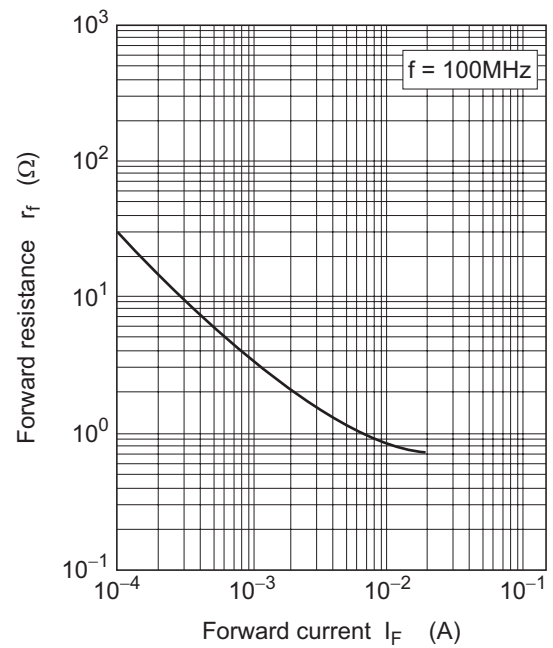


Fig.4 Forward resistance vs. Forward current

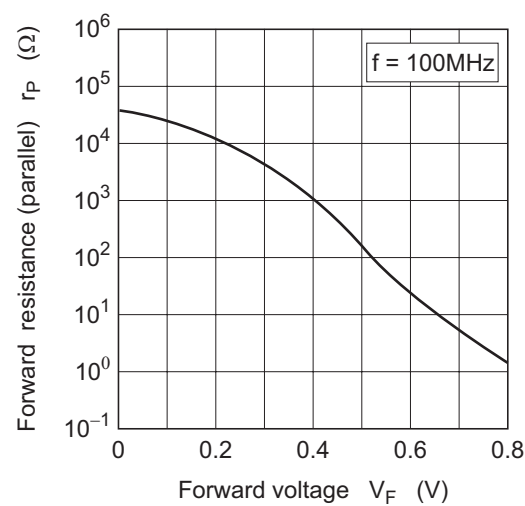
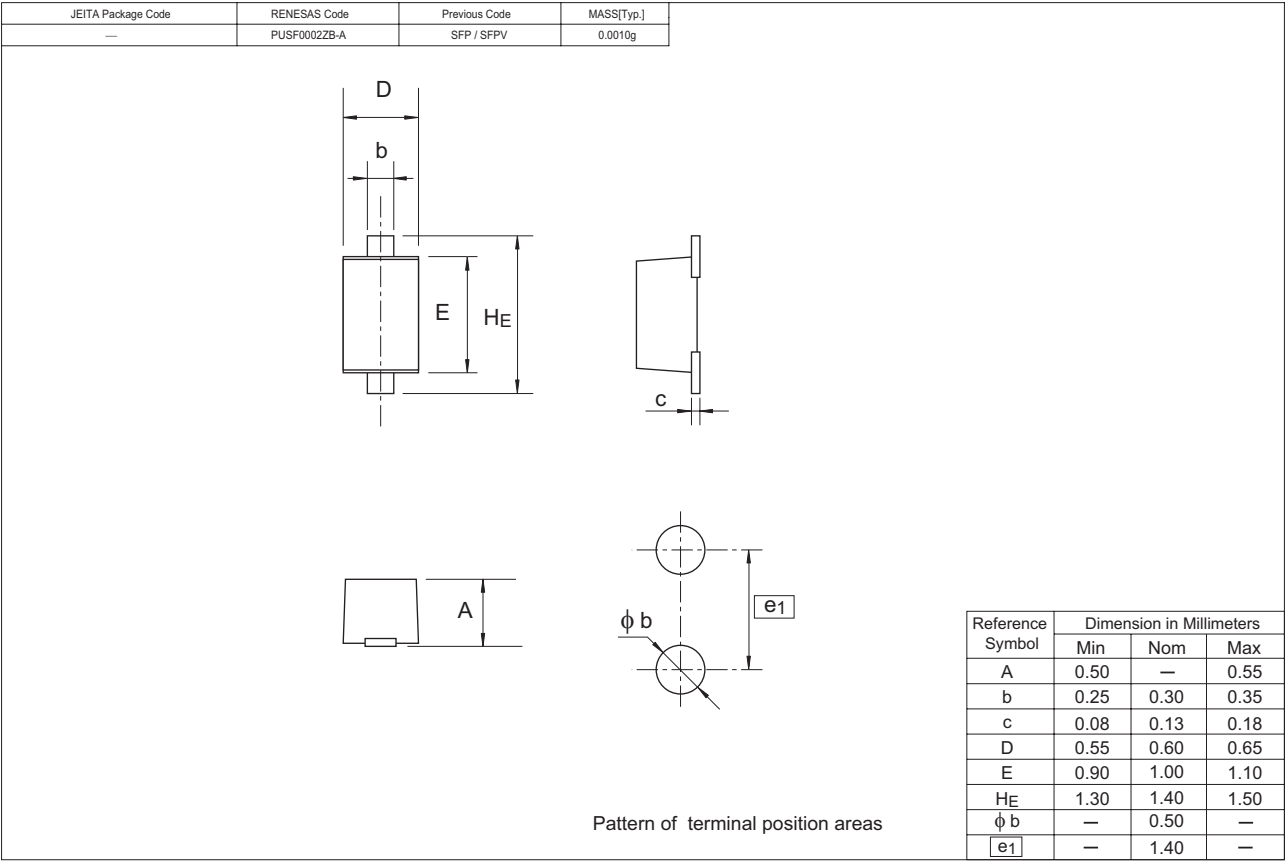


Fig.5 Forward resistance (parallel) vs. Forward voltage

Package Dimensions



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