

To all our customers

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Renesas Technology Corp.  
Customer Support Dept.  
April 1, 2003

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Keep safety first in your circuit designs!

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# HVC133

Silicon Epitaxial Planar Pin Diode for High Frequency Switching



ADE-208-423B (Z)

Rev. 2  
Feb. 2000

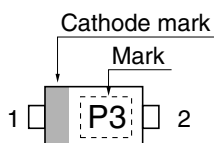
## Features

- Low capacitance. ( $C1 = 1.0\text{pF max}$ )
- Low forward resistance. ( $r_f = 0.7\Omega \text{ max}$ )
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HVC133	P3	UFP

## Pin Arrangement



1. Cathode
2. Anode

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
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 voltage	$V_R$	30	—	—	V	$I_R = 1\mu A$
Reverse current	$I_R$	—	—	100	nA	$V_R = 25V$
Forward voltage	$V_F$	—	—	0.85	V	$I_F = 2\text{ mA}$
Capacitance	$C_1$	—	—	1.0	pF	$V_R = 1V, f = 1\text{ MHz}$
	$C_6$	—	—	0.9		$V_R = 6V, f = 1\text{ MHz}$
Forward resistance	$r_f$	—	0.55	0.7	$\Omega$	$I_F = 2\text{ mA}, f = 100\text{ MHz}$

Main Characteristic

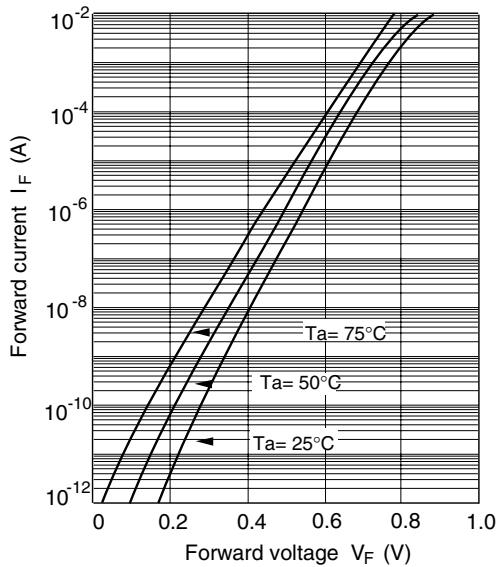


Fig.1 Forward current Vs. Forward voltage

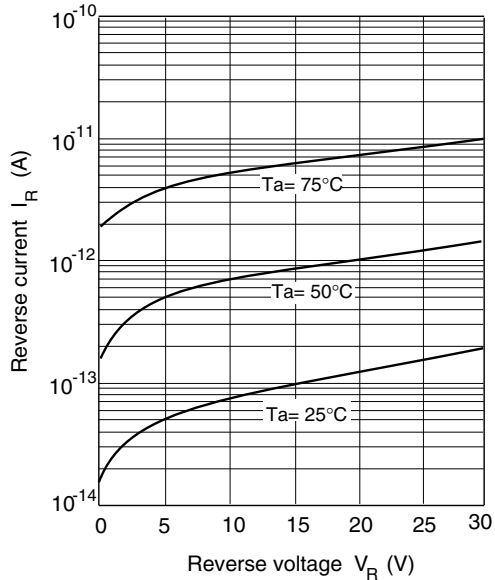


Fig.2 Reverse current Vs. Reverse voltage

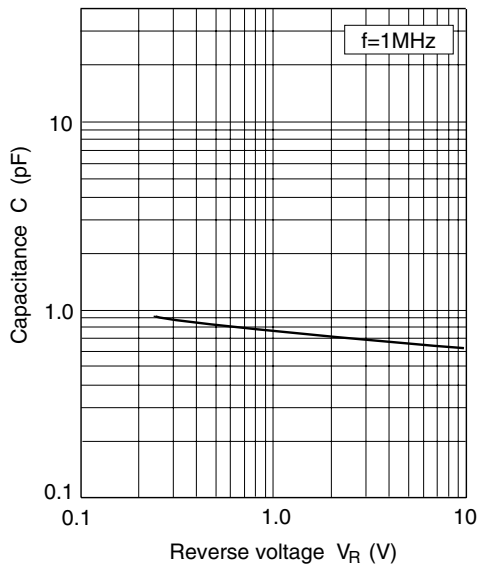


Fig.3 Capacitance Vs. Reverse voltage

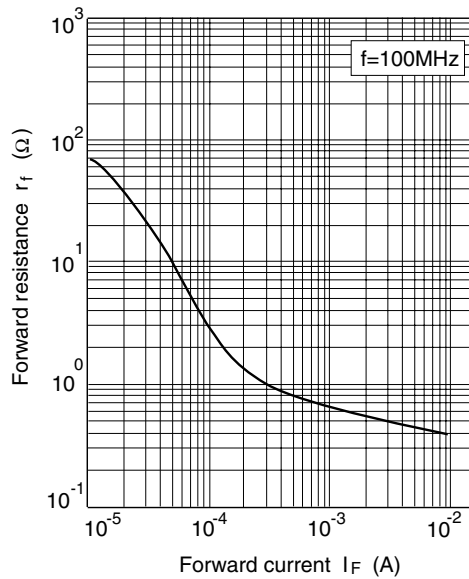
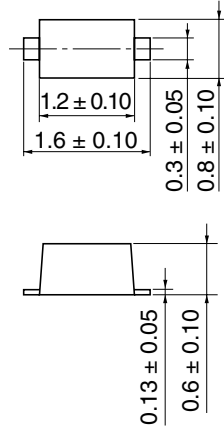


Fig.4 Forward resistance Vs. Forward current

## Package Dimensions

Unit: mm



Hitachi Code	UFP
JEDEC	—
EIAJ	Conforms
Mass	0.0016 g

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