

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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for new design

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To all our customers

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

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# HVD133

Silicon Epitaxial Planar Pin Diode for High Frequency Switching



ADE-208-947 (Z)

Rev. 0  
Jun. 2000

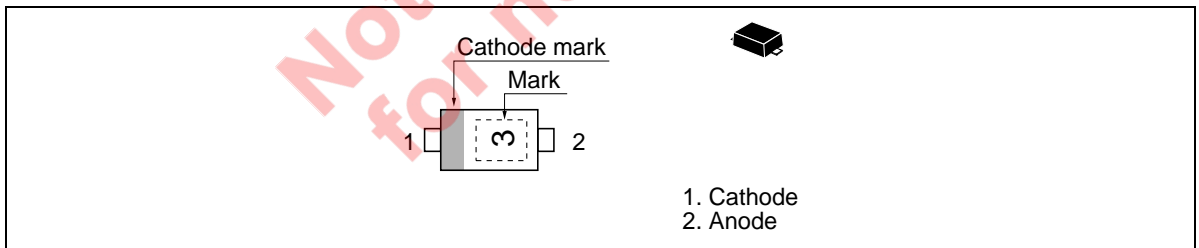
## Features

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

## Ordering Information

Type No.	Laser Mark	Package Code
HVD133	3	SFP

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
Power dissipation	Pd	150	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

## Electrical Characteristics

(Ta = 25°C)

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

Note : Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

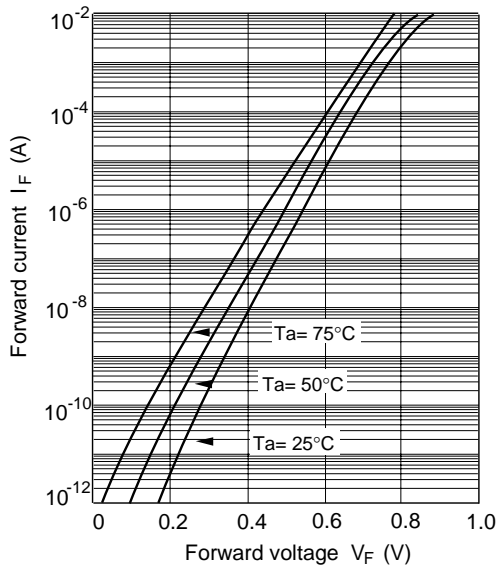


Fig.1 Forward current Vs. Forward voltage

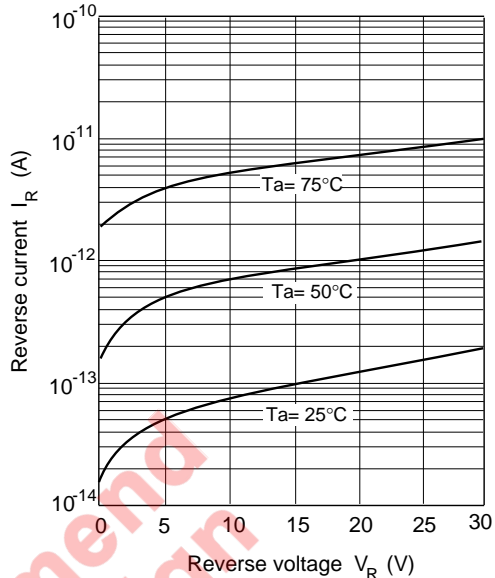


Fig.2 Reverse current Vs. Reverse voltage

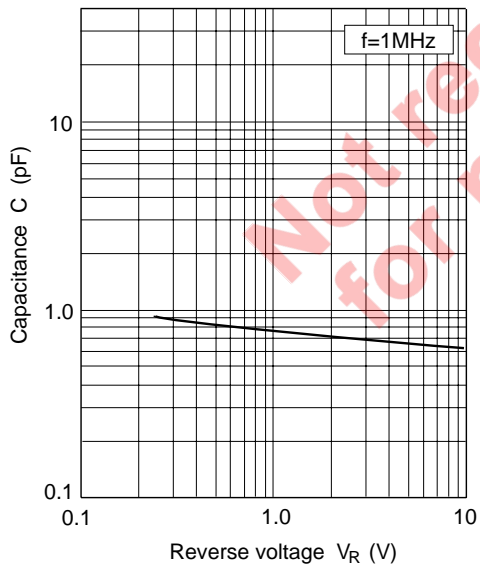


Fig.3 Capacitance Vs. Reverse voltage

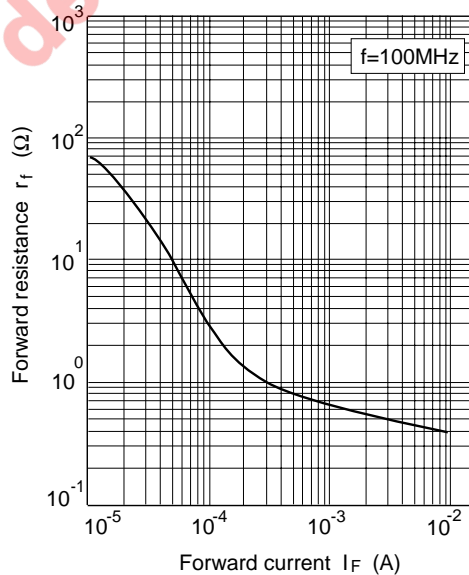
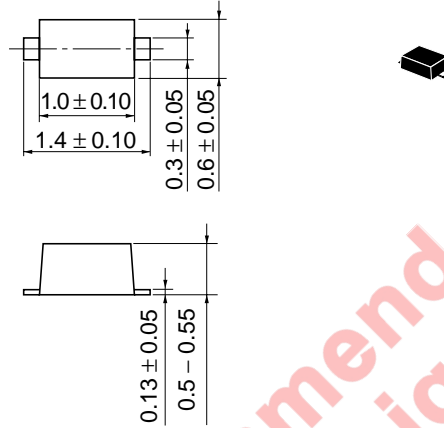


Fig.4 Forward resistance Vs. Forward current

Not recommended for new design

## Package Dimensions

Unit: mm



Hitachi Code	SFP
JEDEC	—
EIAJ	—
Mass (reference value)	0.0010 g

Not recommend  
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