

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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Not recommended  
for new design

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## HVD148

### Silicon Epitaxial Trench Pin Diode for Antenna Switching

REJ03G0210-0100Z

Rev.1.00

Apr.05.2004

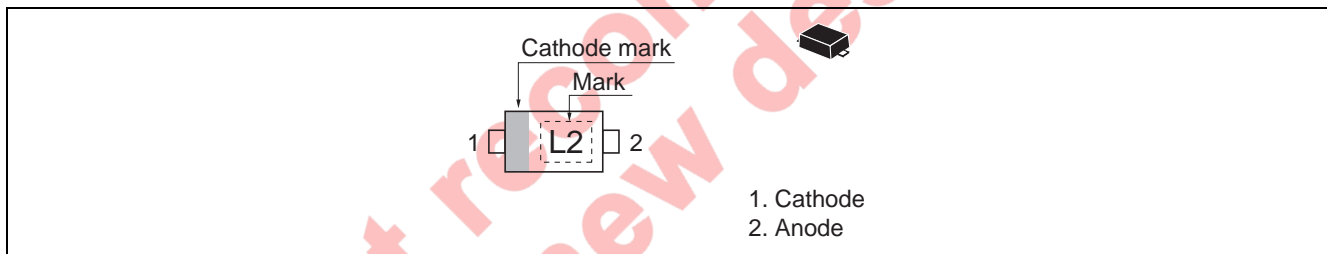
#### Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance.(C = 0.37 pF max)
- Low forward resistance. (rf = 2.5  $\Omega$  max)
- Super small Flat Package (SFP) is suitable for surface mount design.

#### Ordering Information

Type No.	Laser Mark	Package Code
HVD148	L2	SFP

#### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	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	—	—	0.37	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
Forward resistance	$r_f$	—	—	2.5	$\Omega$	$I_F = 10\text{ mA}, f = 100\text{ MHz}$

Notes: 1. Please do not use the soldering iron due to avoid high stress to the EFP package.

2. 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

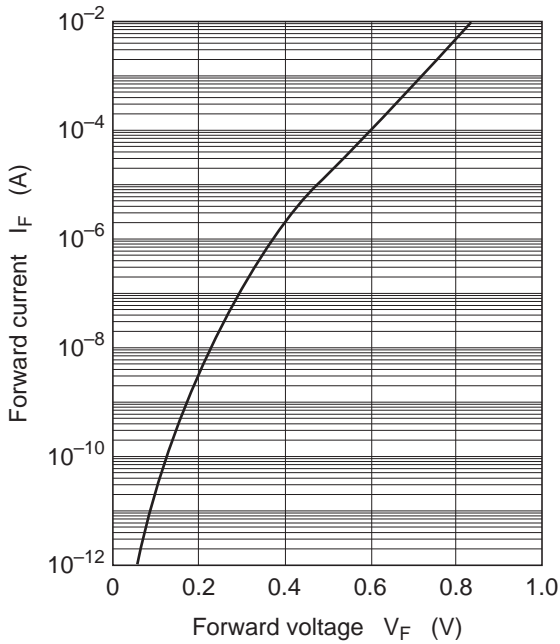


Fig.1 Forward current vs. Forward voltage

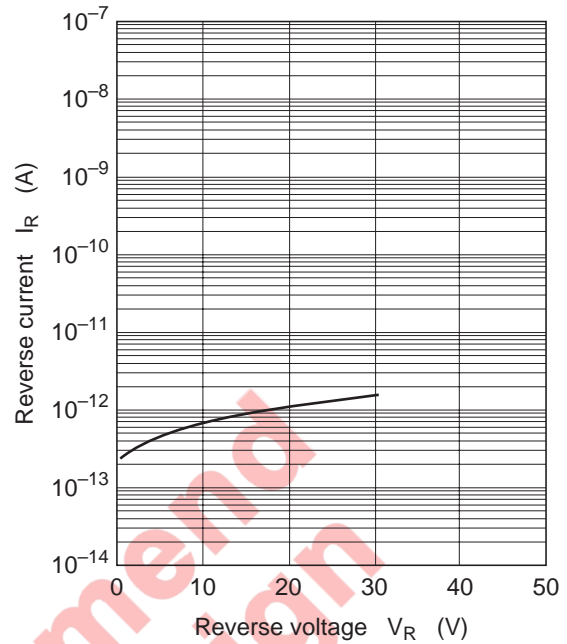


Fig.2 Reverse current vs. Reverse voltage

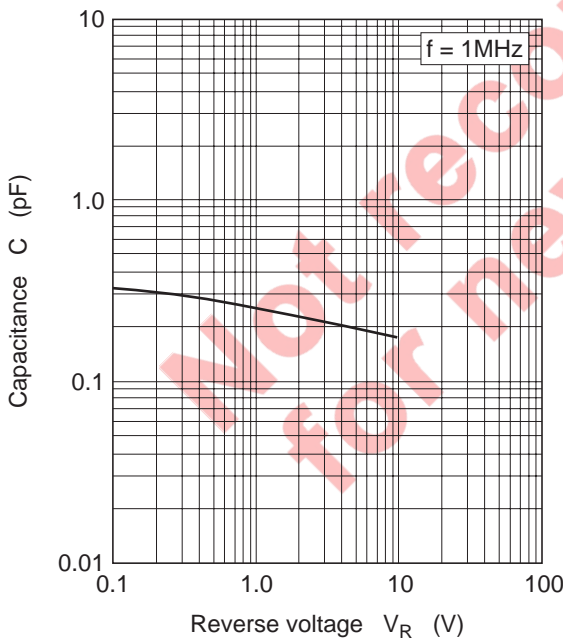


Fig.3 Capacitance vs. Reverse voltage

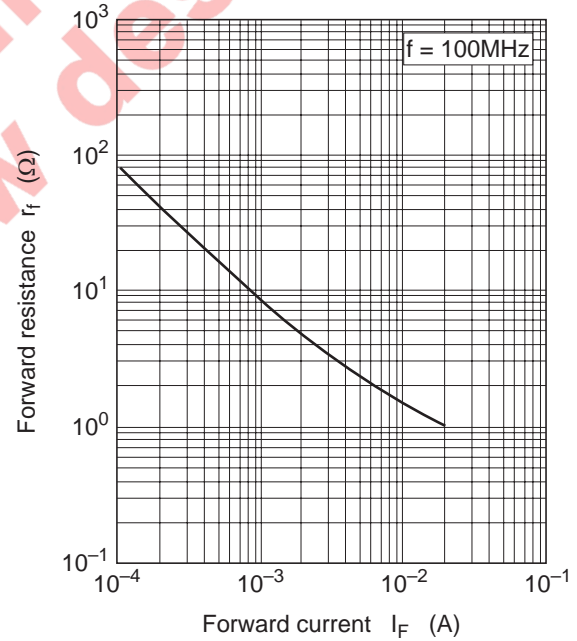
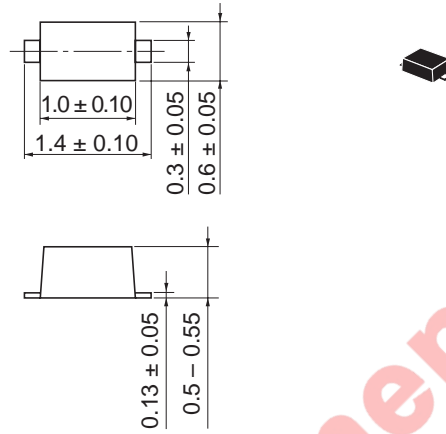


Fig.4 Forward resistance vs. Forward current

## Package Dimensions

As of January, 2003  
Unit: mm

Package Code	SFP
JEDEC	—
JEITA	—
Mass (reference value)	0.0010 g

Not recommend  
for new design

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