

To our customers,

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## Old Company Name in Catalogs and Other Documents

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

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

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# HVB14S

## Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

REJ03G0438-0200  
(Previous: ADE-208-484A)  
Rev.2.00  
Dec 15, 2004

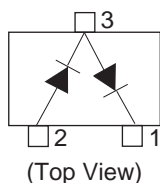
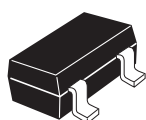
### Features

- Low forward resistance. ( $r_f = 7.0 \Omega$  max)
- Low capacitance. ( $C = 0.25$  pF typ)
- CMPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVB14S	H6	CMPAK

### Pin Arrangement



1. Cathode
2. Anode
3. Cathode  
Anode

**Absolute Maximum Ratings** \*1

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	50	V
Forward current	$I_F$	50	mA
Power dissipation	$P_d$	100	mW
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

Note: 1. Absolute maximum ratings are described each unit separately.

**Electrical Characteristics**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_R$	—	—	100	nA	$V_R = 50\text{ V}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 50\text{ mA}$
Capacitance	C	—	0.25	—	pF	$V_R = 50\text{ V}$ , $f = 1\text{ MHz}$
Forward resistance	$r_f$	—	—	7	$\Omega$	$I_F = 10\text{ mA}$ , $f = 100\text{ MHz}$
ESD-Capability *1	—	200	—	—	V	C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse.

Notes: 1. Per one device.

2. Failure criterion;  $I_R \geq 200\text{ nA}$  at  $V_R = 50\text{ V}$

## Main Characteristic

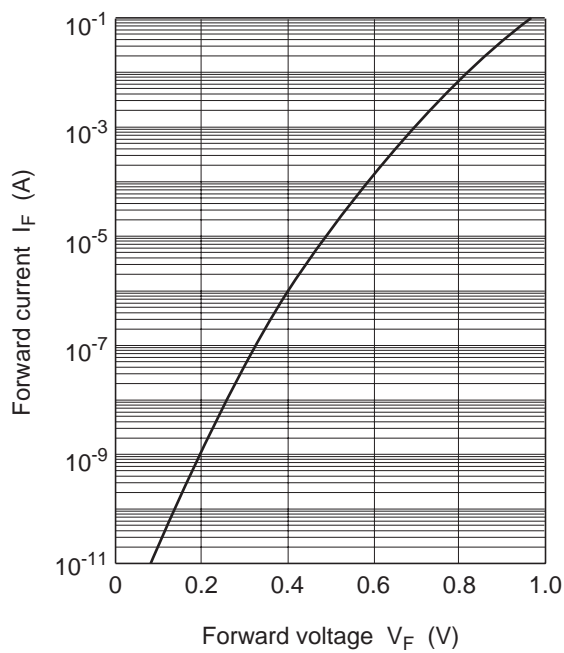


Fig.1 Forward current vs. Forward voltage

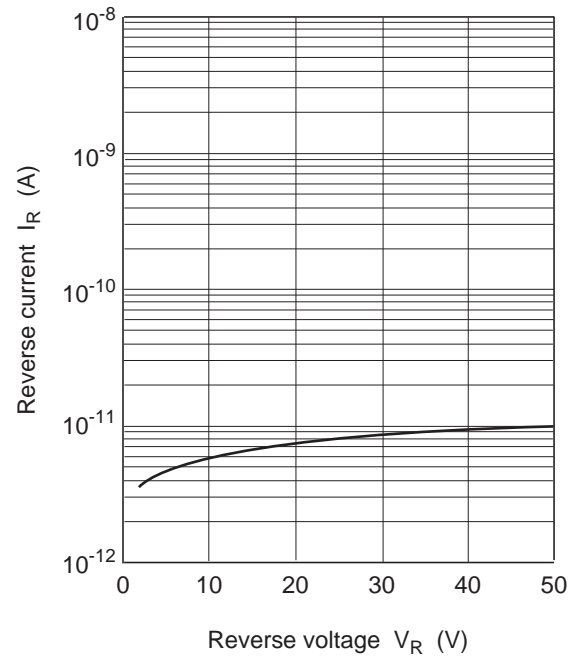


Fig.2 Reverse current vs. Reverse voltage

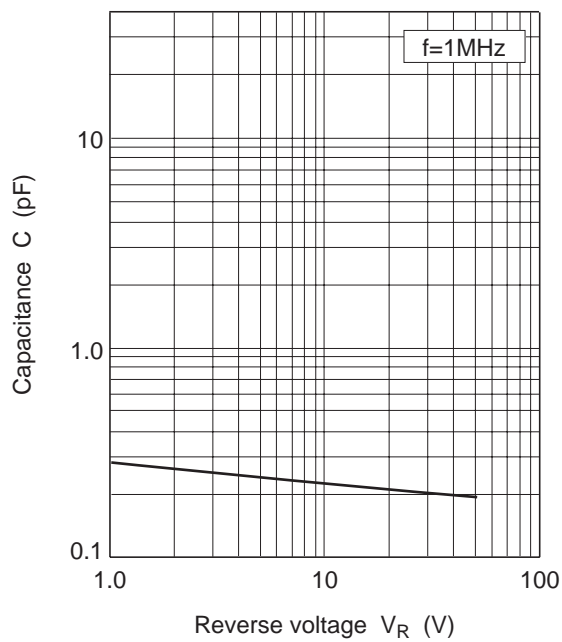


Fig.3 Capacitance vs. Reverse voltage

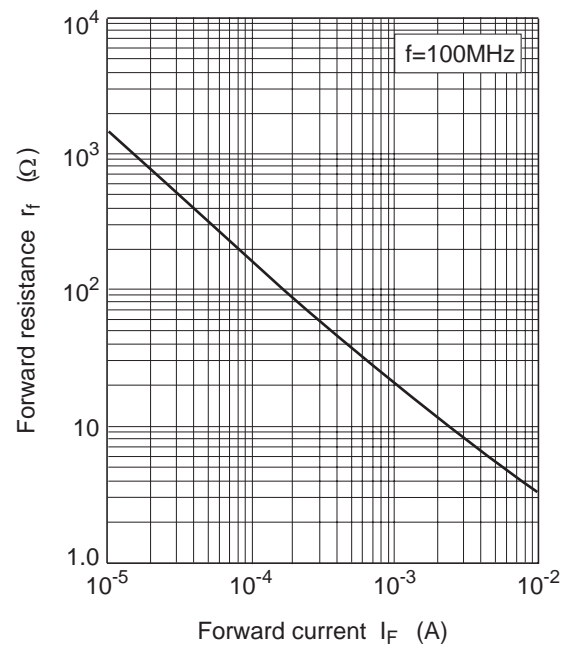
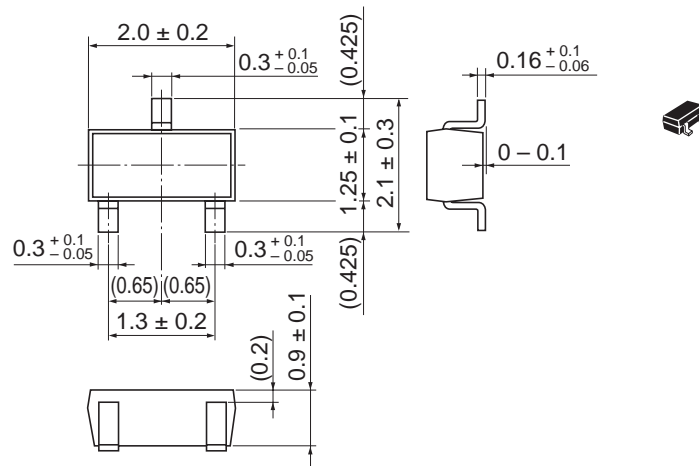


Fig.4 Forward resistance vs. Forward current

## Package Dimensions

As of January, 2003  
Unit: mm



Package Code	CMPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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