

HVB14S

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

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

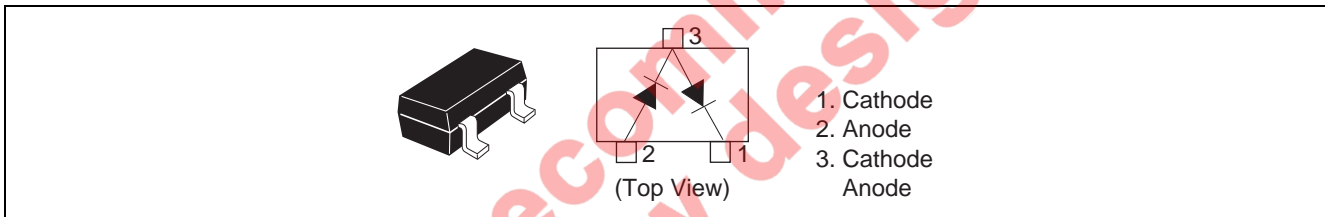
Features

- 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



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	Ω	$I_F = 10\text{ mA}$, $f = 100\text{ MHz}$
ESD-Capability *1	—	200	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Notes: 1. Per one device.

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

Not recommended for new designs

Main Characteristic

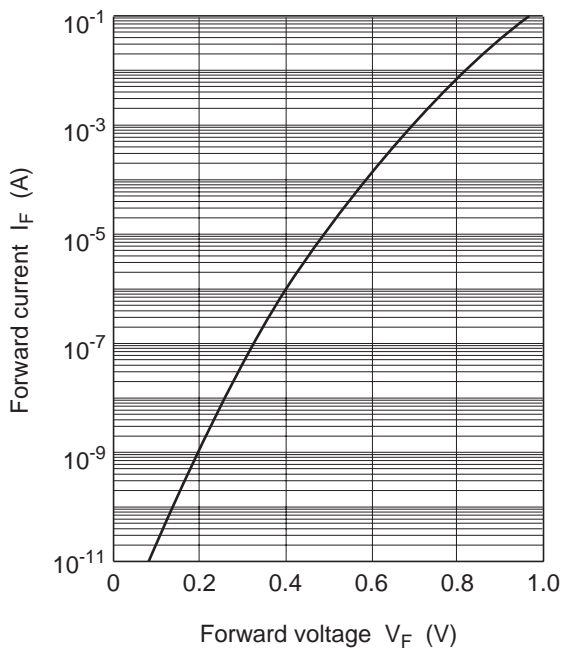


Fig.1 Forward current vs. Forward voltage

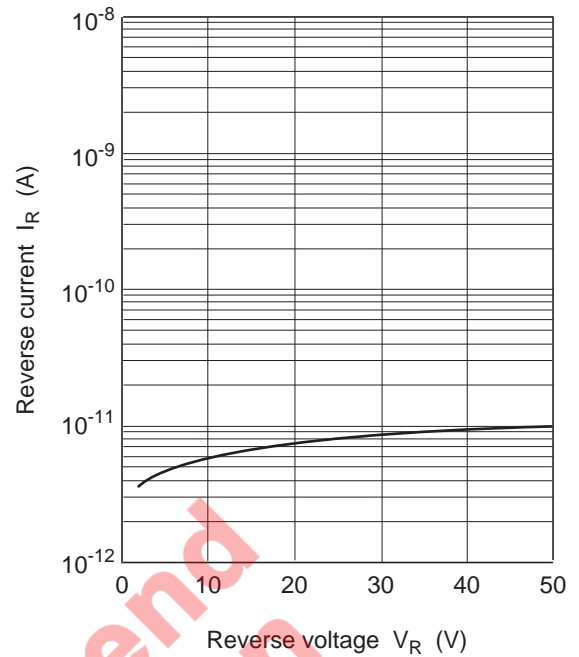


Fig.2 Reverse current vs. Reverse voltage

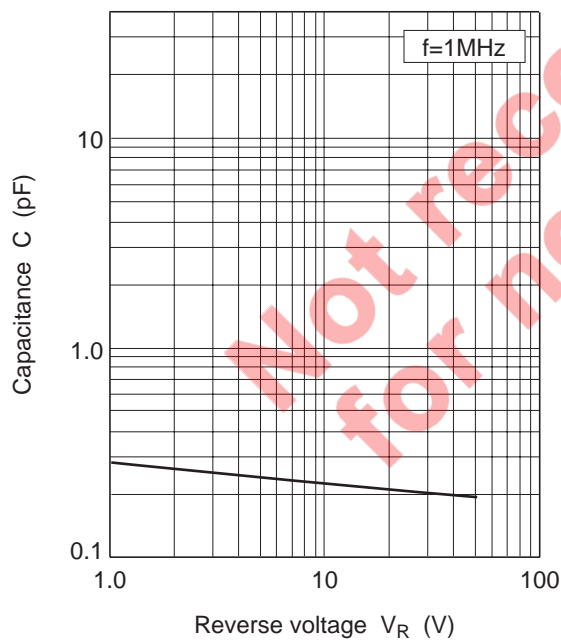


Fig.3 Capacitance vs. Reverse voltage

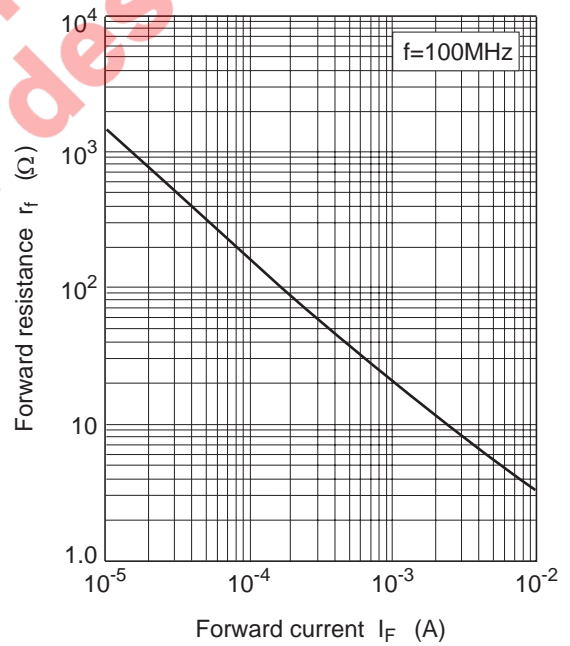
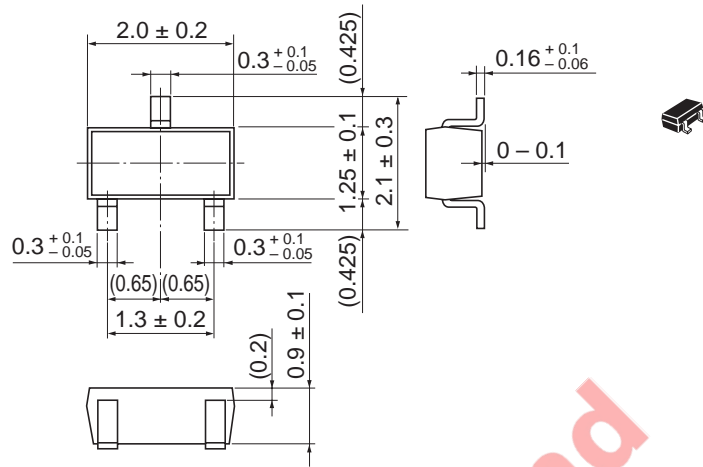


Fig.4 Forward resistance vs. Forward current

Package Dimensions

As of January, 2003
Unit: mm



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

Not recommended
for new design

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Renesas Electronics Corporation

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