

# HVB190S

## Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

REJ03G0440-0100  
(Previous: ADE-208-1597)  
Rev.1.00  
Dec 20, 2004

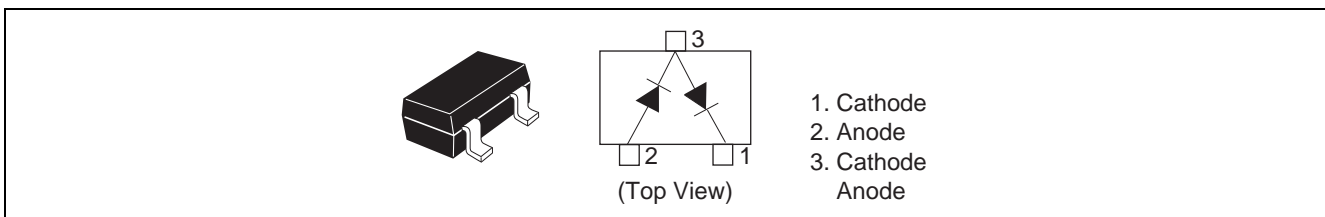
### Features

- Low capacitance. ( $C = 0.35$  pF max)
- Low forward resistance. ( $r_f = 3.0 \Omega$  typ)
- CMPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVB190S	H9	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**\*1

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 50$ mA
Reverse current	$I_R$	—	—	100	nA	$V_R = 50$ V
Capacitance	C	—	—	0.35	pF	$V_R = 50$ V, $f = 1$ MHz
Forward resistance	$r_f$	—	3.0	5.0	$\Omega$	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability *2	—	200	—	—	V	C = 200 pF, Both forward and reverse direction 1 pulse

Notes: 1. Per one device.

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

Main Characteristic

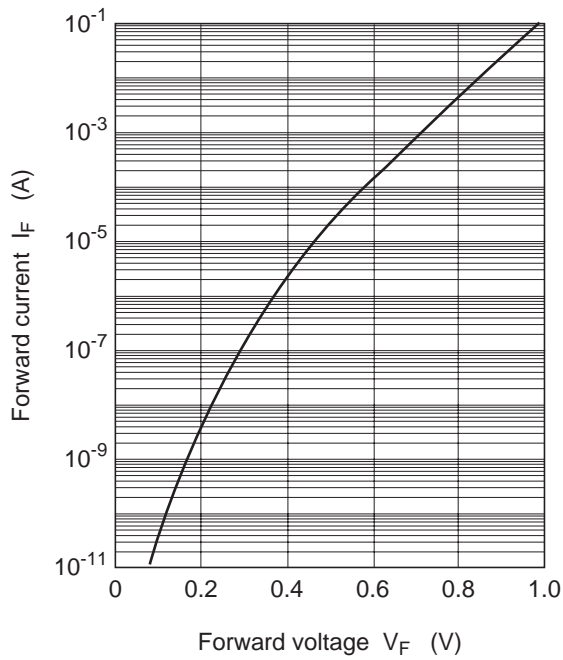


Fig.1 Forward current vs. Forward voltage

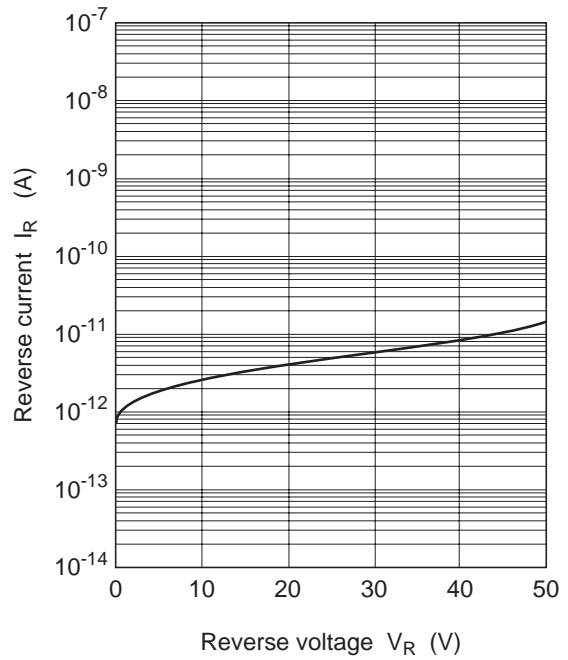


Fig.2 Reverse current vs. Reverse voltage

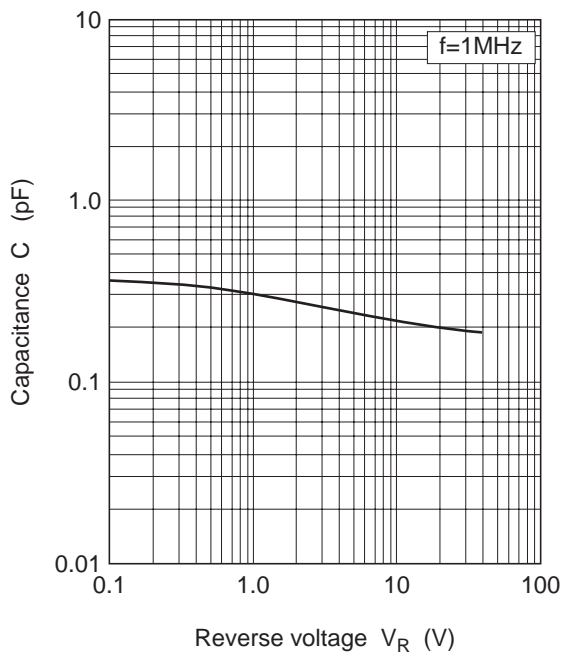


Fig.3 Capacitance vs. Reverse voltage

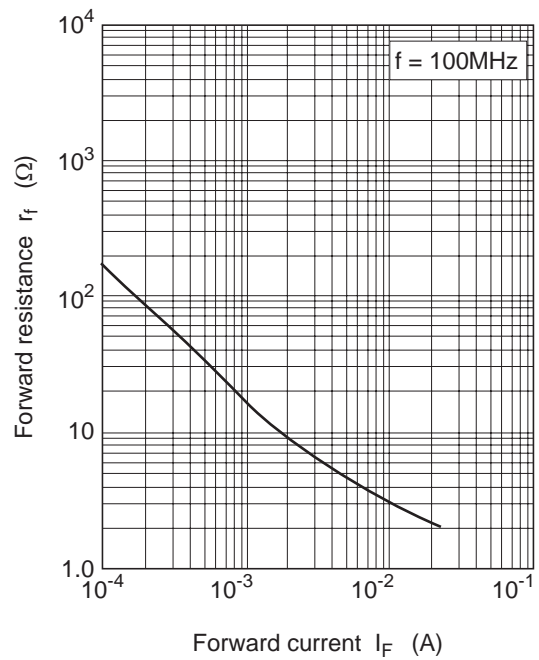
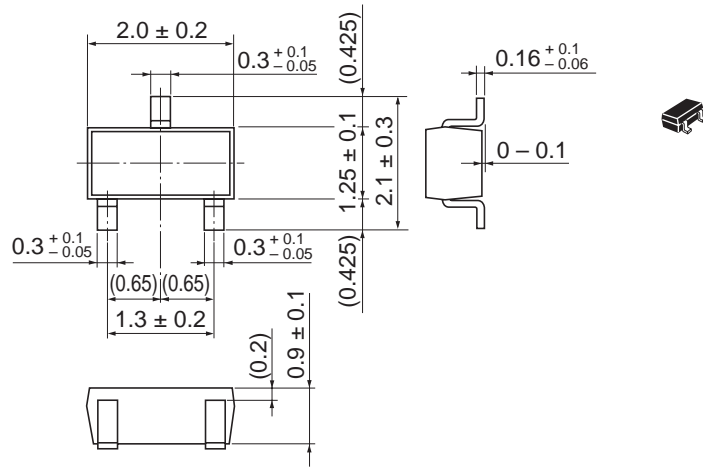


Fig.4 Forward resistance vs. Forward current

Package Dimensions

As of January, 2003  
Unit: mm



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

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