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# HVB14S

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

# HITACHI

ADE-208-484(Z)

Rev 0

December 1996

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## Features

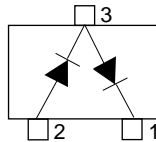
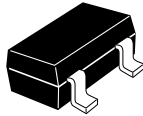
- Low forward resistance. ( $r_f = 7.0\Omega_{\max}$ )
- Low capacitance. ( $C = 0.25\text{pF typ}$ )
- CMPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HVB14S	H6	CMPAK

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## Outline



(Top View)

- 1 Cathode
- 2 Anode
- 3 Cathode  
Anode

## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	50	V
Forward current	$I_F$	50	mA
Power dissipation	$P_d$ <sup>*1</sup>	100	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Note: 1. Two device total.

## Electrical Characteristics (Ta = 25°C) \*2

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	0.7	0.8	1.0	V	$I_F = 50$ mA
Reverse current	$I_R$	0	0	100	nA	$V_R = 50$ V
Capacitance	C	0.2	0.25	0.3	pF	$V_R = 50$ V, $f = 1$ MHz
Forward resistance	$r_f$	0.5	0.5	7	$\Omega$	$I_F = 10$ mA, $f = 100$ MHz
ESD-Capability <sup>*1</sup>	0.5	200	0.5	0.5	V	C=200pF, Both forward and reverse direction 1 pulse

Note: 1. Failure criterion ;  $I_R \geq 200$ nA at  $V_R = 50$  V

Note: 2. Per one device.

Main Characteristic

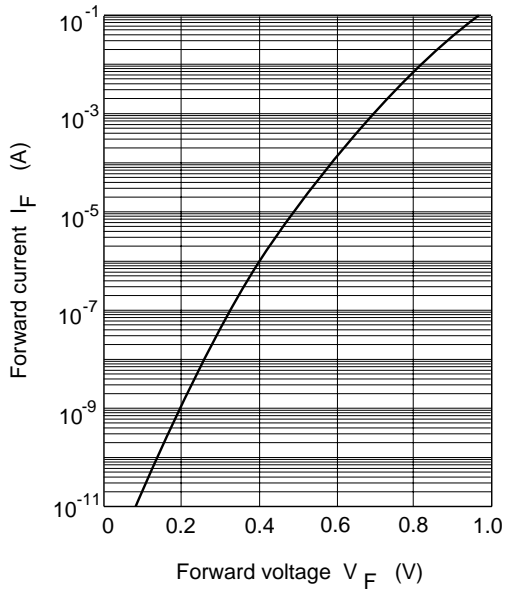


Fig.1 Forward current Vs. Forward voltage

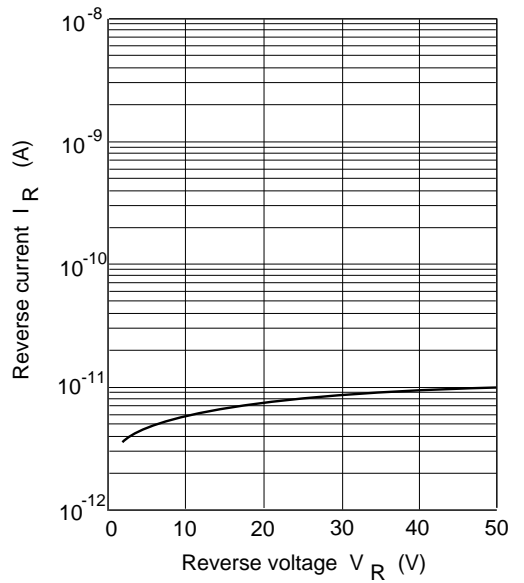


Fig.2 Reverse current Vs. Reverse voltage

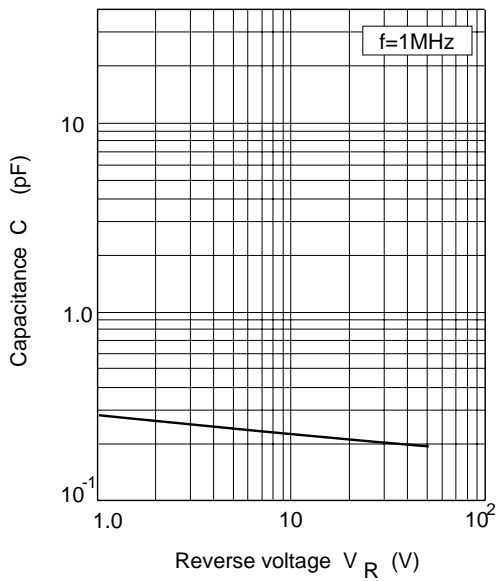


Fig.3 Capacitance Vs. Reverse voltage

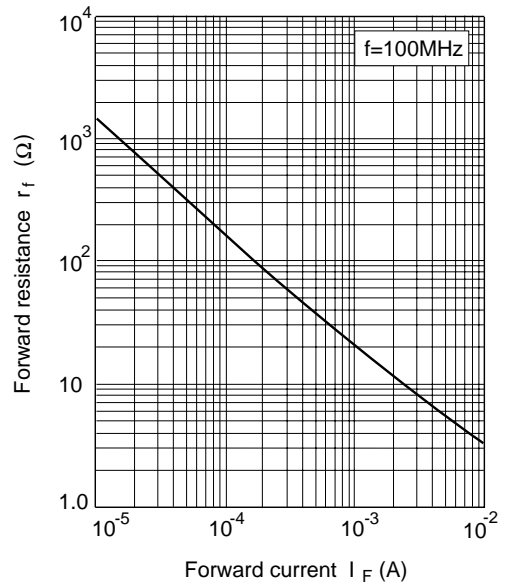
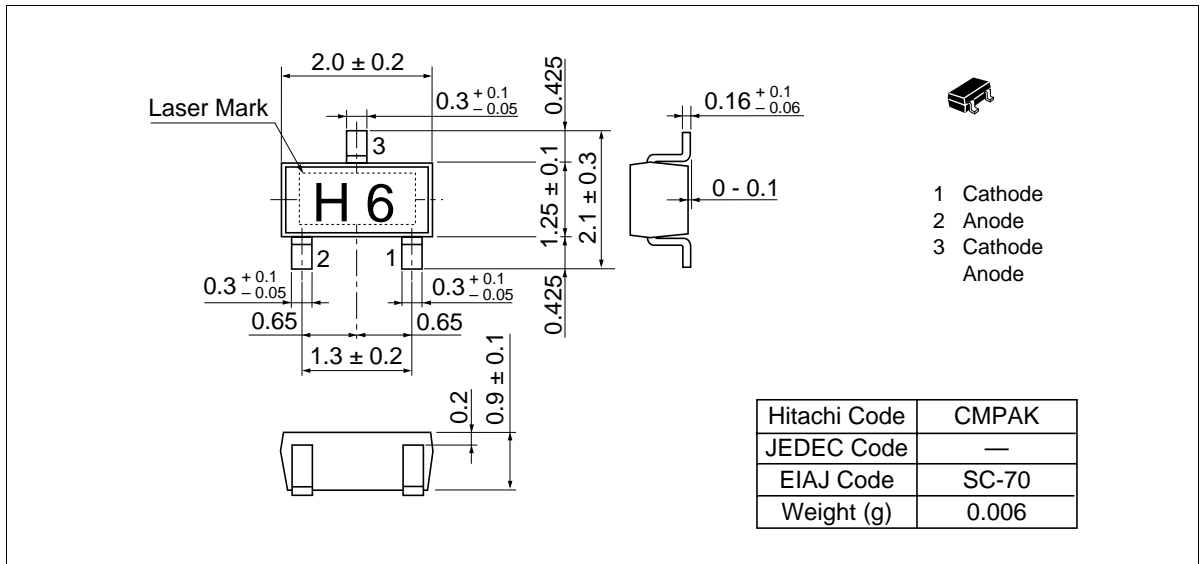


Fig.4 Forward resistance Vs. Forward current

## Package Dimensions

Unit : mm



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