

# HVC369B

Variable Capacitance Diode for VCO

# HITACHI

ADE-208-446B (Z)

Rev.2

Mar. 2000

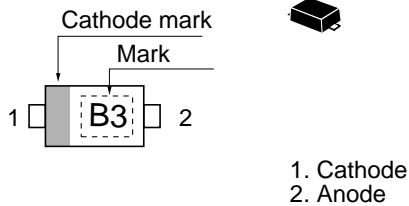
## Features

- Low capacitance and to be usable at GHz.
- High capacitance ratio. ( $n = 2.3$  min)
- Low series resistance. ( $r_s = 0.5\Omega$  max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HVC369B	B3	UFP

## Outline



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

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	15	V
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	$I_{R1}$	—	—	10	nA	$V_R = 15V$
	$I_{R2}$	—	—	100		$V_R = 15V, T_a = 60\text{ °C}$
Capacitance	$C_1$	4.65	—	5.15	pF	$V_R = 1V, f = 1\text{ MHz}$
	$C_4$	1.85	—	2.15		$V_R = 4V, f = 1\text{ MHz}$
Capacitance ratio	n	2.3	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	0.5	$\Omega$	$V_R = 1V, f = 470\text{ MHz}$

Main Characteristic

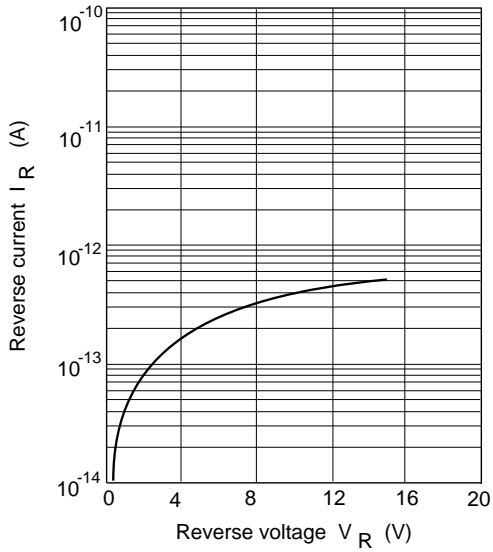


Fig.1 Reverse current Vs. Reverse voltage

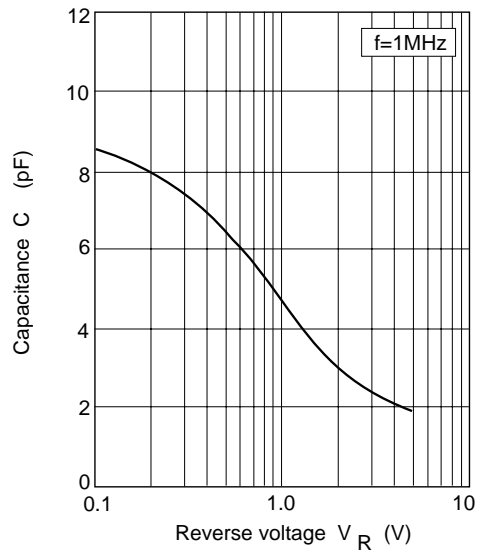


Fig.2 Capacitance Vs. Reverse voltage

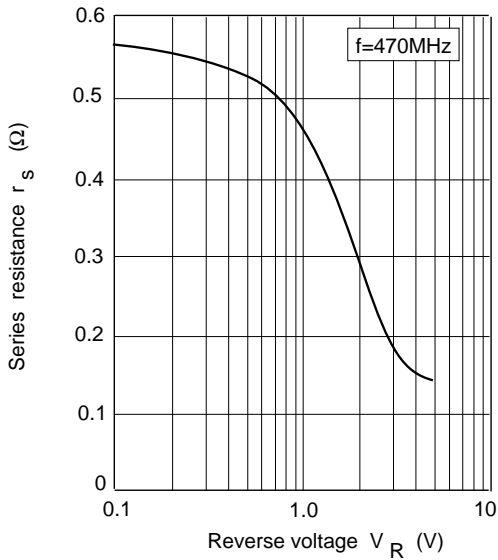


Fig.3 Series resistance Vs. Reverse voltage

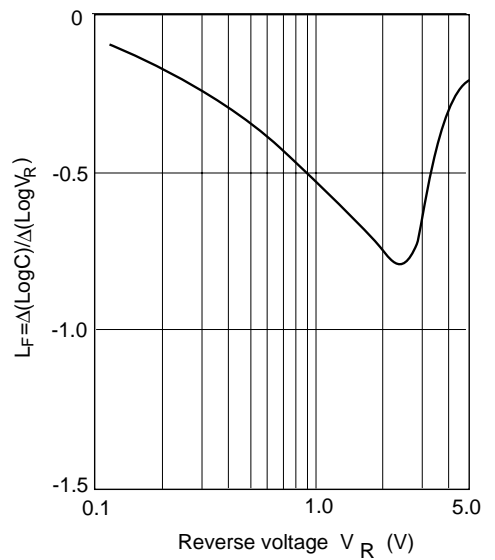
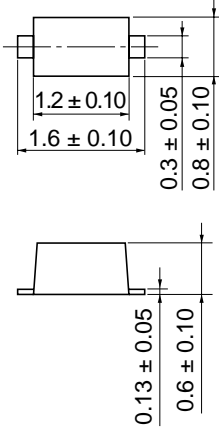


Fig.4 Linearity factor Vs. Reverse voltage

## Package Dimensions

Unit: mm



Hitachi Code	UFP
JEDEC	—
EIAJ	Conforms
Mass	0.0016 g

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