

HVC369B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-446B (Z)

Rev.2

Mar. 2000

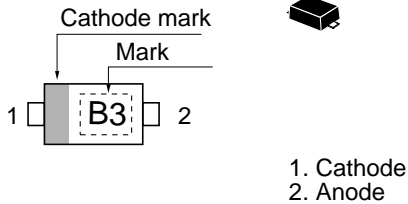
Features

- 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	Ω	$V_R = 1V, f = 470\text{ MHz}$

Main Characteristic

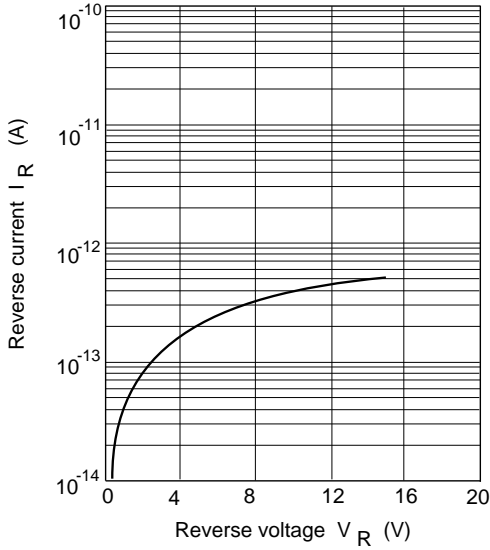


Fig.1 Reverse current Vs. Reverse voltage

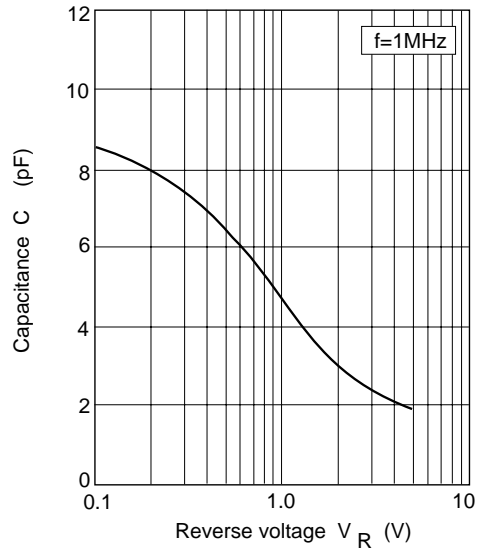


Fig.2 Capacitance Vs. Reverse voltage

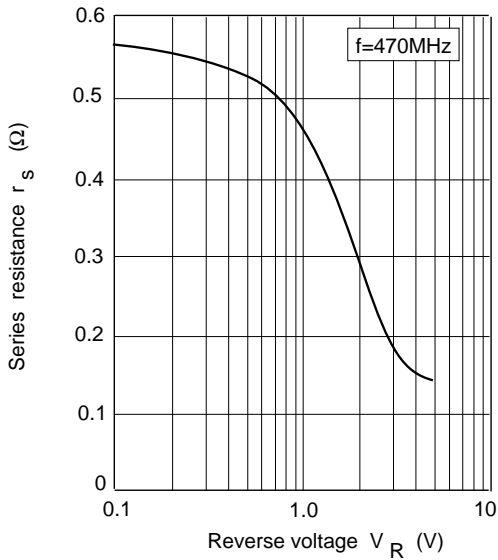


Fig.3 Series resistance Vs. Reverse voltage

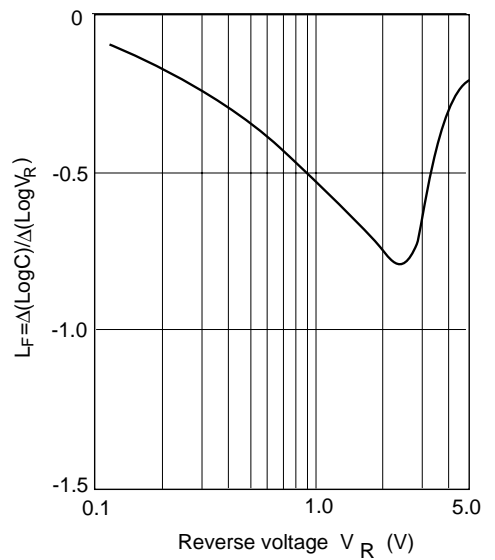
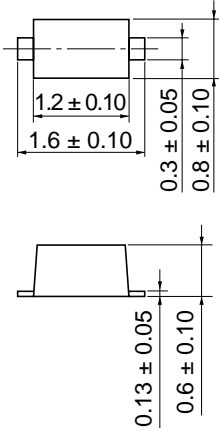


Fig.4 Linearity factor Vs. Reverse voltage

Package Dimensions

Unit: mm



Hitachi Code	UFP
JEDEC	—
EIAJ	Conforms
Mass	0.0016 g

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