
HVD369B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-850 (Z)

Rev. 0
Jun. 2000

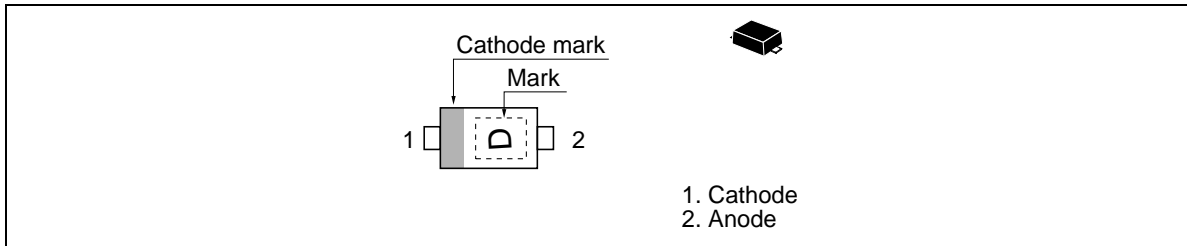
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HVD369B	D	SFP

Outline



HVD369B

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 15\text{ V}$
	I_{R2}	—	—	100		$V_R = 15\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_1	4.65	—	5.15	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	C_4	1.85	—	2.15		$V_R = 4\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	2.3	—	—	—	C_1/C_4
Series resistance	r_s	—	—	0.5	Ω	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

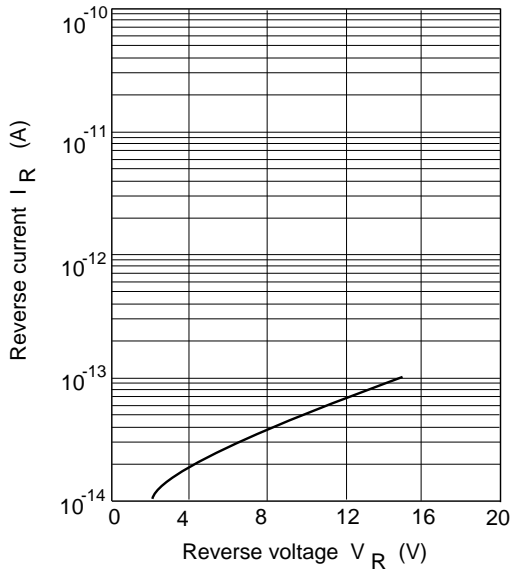


Fig.1 Reverse current Vs. Reverse voltage

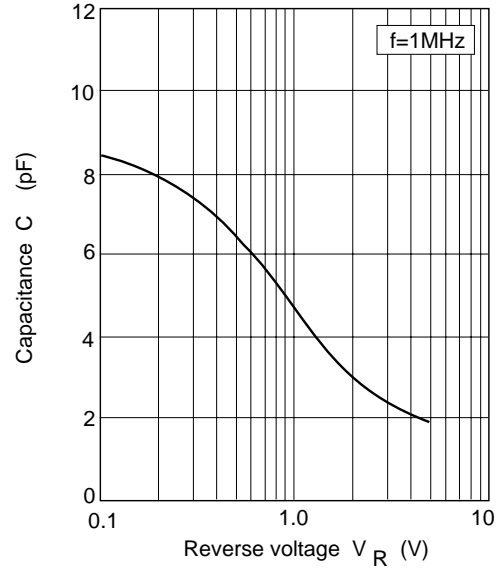


Fig.2 Capacitance Vs. Reverse voltage

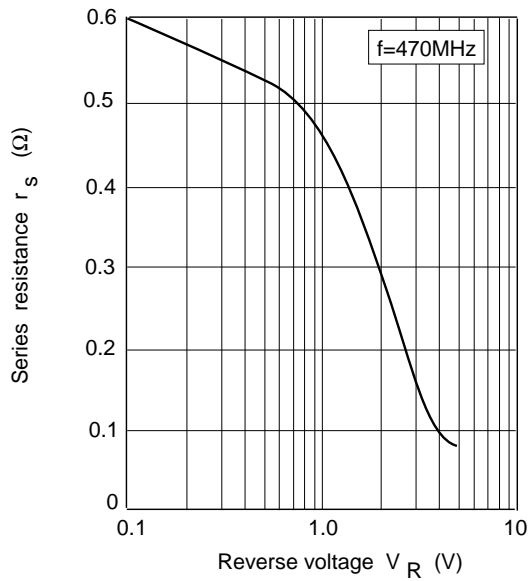


Fig.3 Series resistance Vs. Reverse voltage

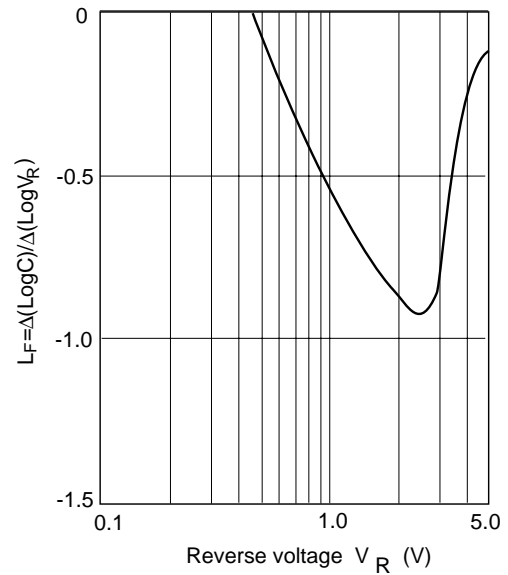
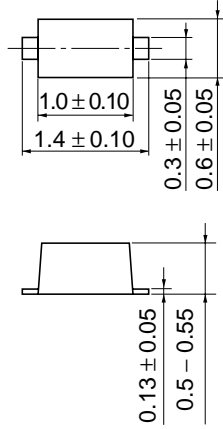


Fig.4 Linearity factor Vs. Reverse voltage

HVD369B

Package Dimensions

Unit: mm



Hitachi Code	SFP
JEDEC	—
EIAJ	—
Mass (reference value)	0.0010 g

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