
HVD368B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-956 (Z)

Rev. 0
Jul. 2000

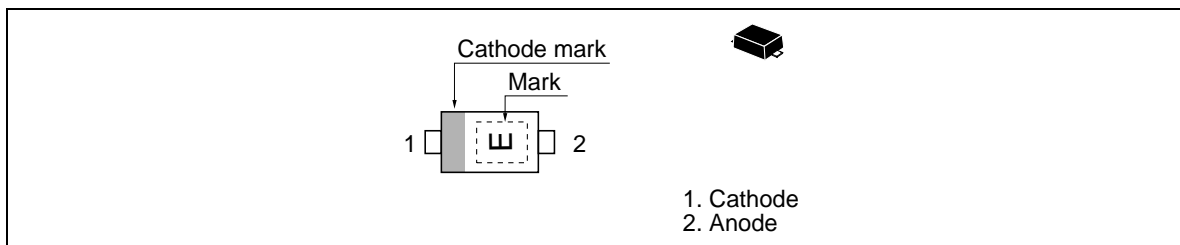
Features

- Low tolerance.
- Low series resistance. ($r_s = 1.1 \Omega$ max)
- Good C-V linearity.
- Super small Flat Package (SFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVD368B	E	SFP

Outline



HVD368B

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	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	$V_R = 10\text{ V}$
	I_{R2}	—	—	100		$V_R = 10\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_1	15.0	—	16.5	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	C_2	9.0	—	10.2		$V_R = 2\text{ V}, f = 1\text{ MHz}$
	C_3	5.0	—	6.0		$V_R = 3\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	2.2	—	—	—	C_1 / C_3
Series resistance	r_s	—	—	1.1	Ω	$V_R = 2\text{ V}, f = 470\text{ MHz}$

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

Main Characteristic

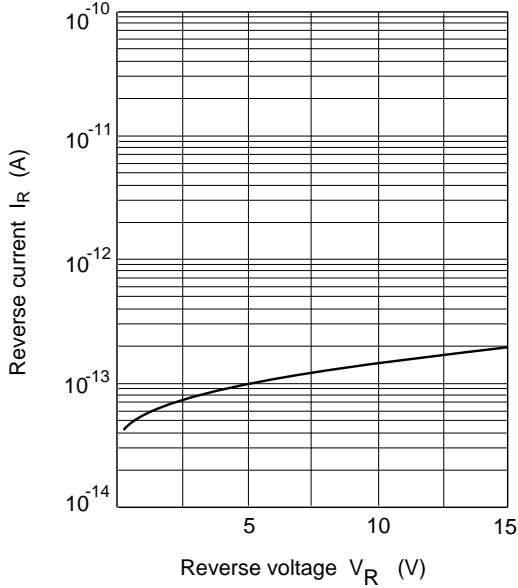


Fig.1 Reverse current Vs. Reverse voltage

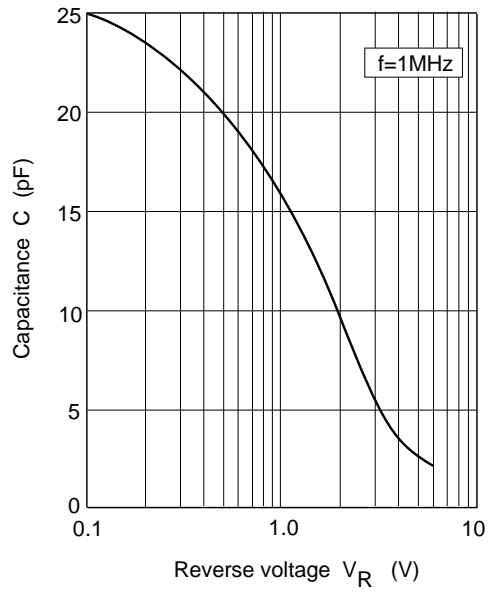


Fig.2 Capacitance Vs. Reverse voltage

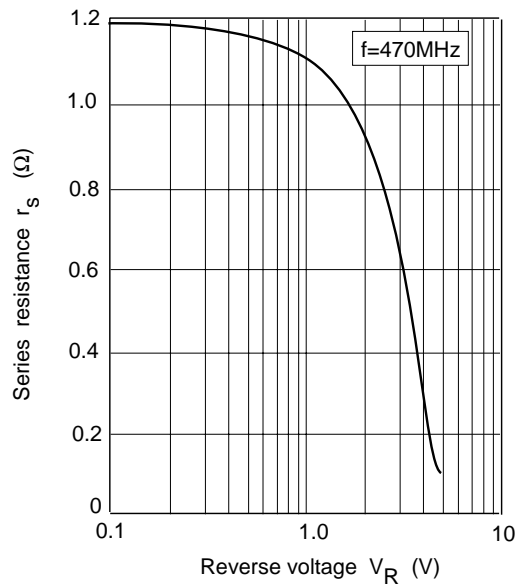


Fig.3 Series resistance Vs. Reverse voltage

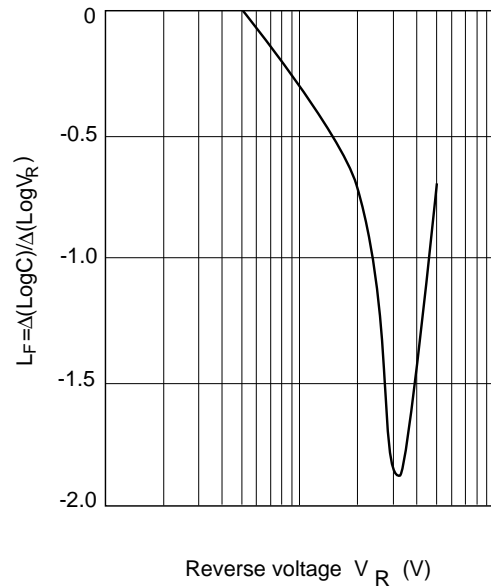
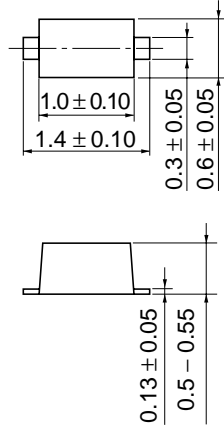


Fig.4 Linearity factor Vs. Reverse voltage

HVD368B

Package Dimensions

Unit: mm



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

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