

# HVC362

Variable Capacitance Diode for VCO

# HITACHI

ADE-208-456(Z)

Rev 0

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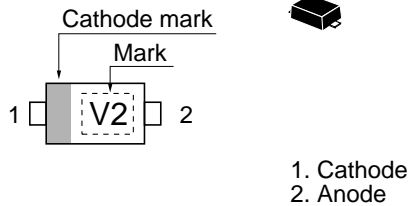
## Features

- High capacitance ratio. ( $n = 3.0$ .min)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HVC362	V2	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	$V_R = 10V$
	$I_{R2}$	—	—	100		$V_R = 10V, T_a = 60°C$
Capacitance	$C_1$	41.6	—	49.9	pF	$V_R = 1V, f = 1 MHz$
	$C_4$	10.1	—	14.8		$V_R = 4V, f = 1 MHz$
Capacitance ratio	n	3.0	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	2.0	$\Omega$	$V_R = 4V, f = 100 MHz$
ESD-Capability <sup>*1</sup>	—	80	—	—	V	*C=200pF, Both forward and reverse direction 1 pulse.

Note 1. Failure criterion ;  $I_R \geq 20nA$  at  $V_R = 10 V$

Main Characteristic

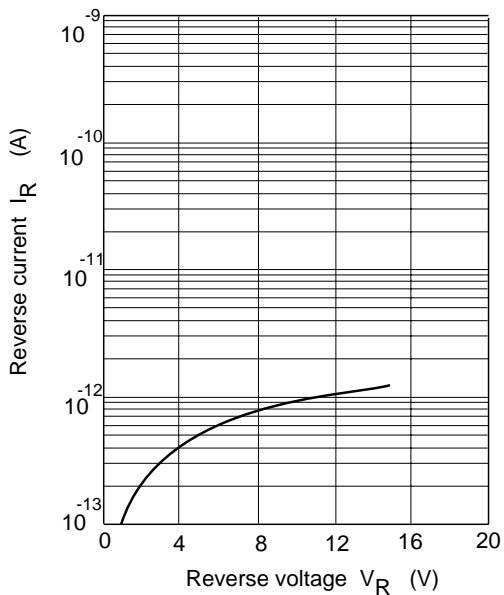


Fig.1 Reverse current Vs. Reverse voltage

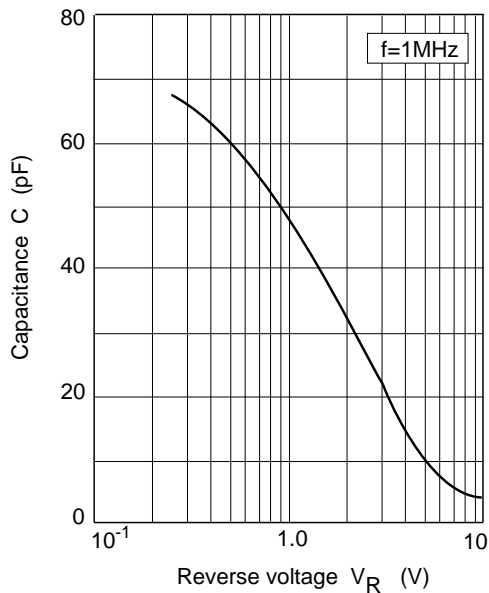


Fig.2 Capacitance Vs. Reverse voltage

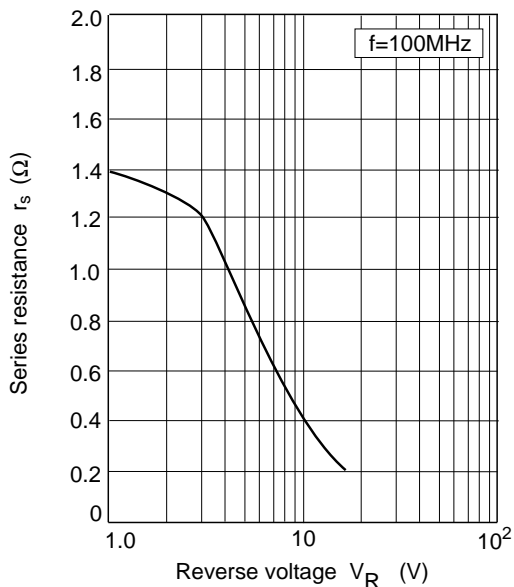


Fig.3 Series resistance Vs. Reverse voltage

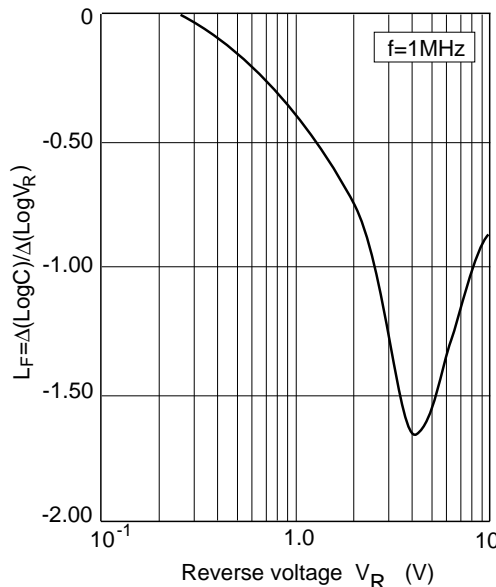
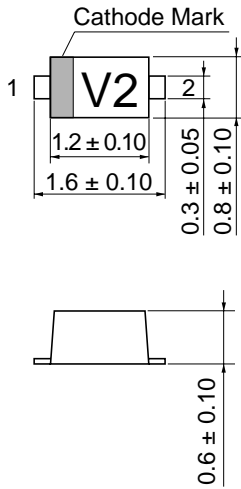


Fig.4  $L_F$  Vs. Reverse voltage

## Package Dimensions

Unit : mm



1. Cathode
2. Anode

Hitachi Code	<i>UFP</i>
JEDECCode	—
EIAJCode	SC-79
Weight(g)	0.0016

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