

HVC358B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-418(Z)

Rev 0

July 1996

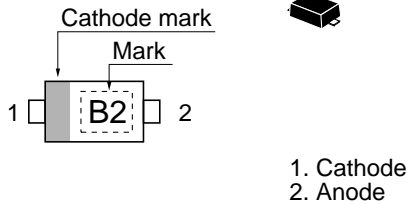
Features

- High capacitance ratio. ($n = 2.20$.min)
- Low series resistance. ($r_s = 0.4$ max)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC358B	B2	UFP

Outline



HVC358B

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		$V_R = 15V, T_a = 60°C$
Capacitance	C_1	19.5	—	21.0	pF	$V_R = 1V, f = 1\text{ MHz}$
	C_4	8.00	—	9.30		$V_R = 4V, f = 1\text{ MHz}$
Capacitance ratio	n	2.20	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	0.4	Ω	$V_R = 1V, f = 470\text{ MHz}$

Main Characteristic

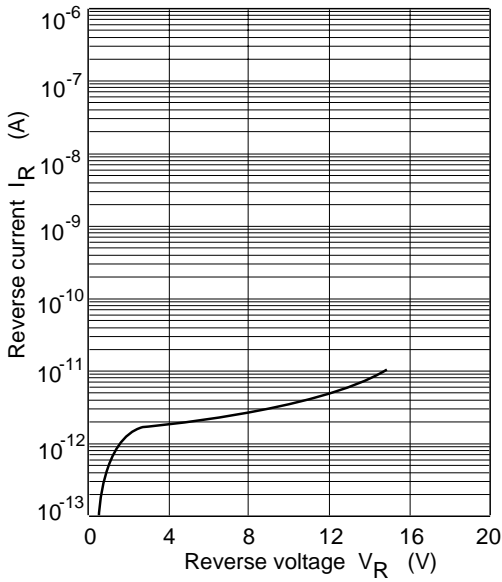


Fig.1 Reverse current Vs. Reverse voltage

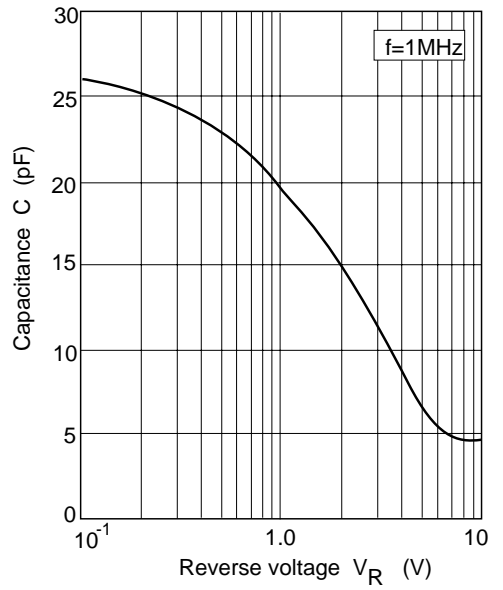


Fig.2 Capacitance Vs. Reverse voltage

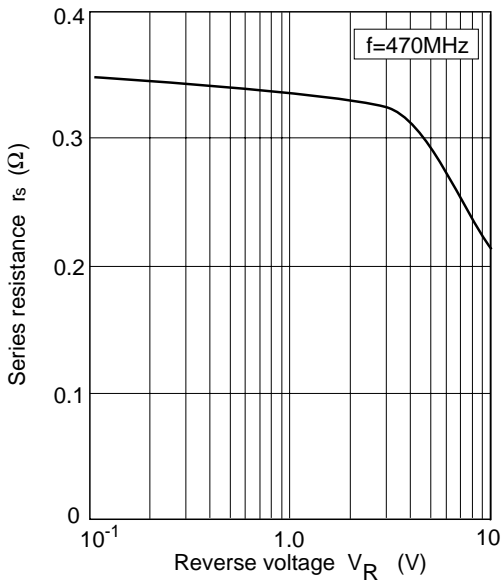


Fig.3 Series resistance Vs. Reverse voltage

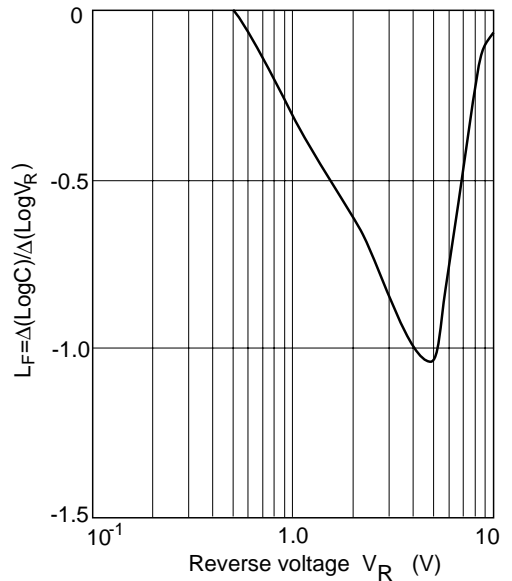
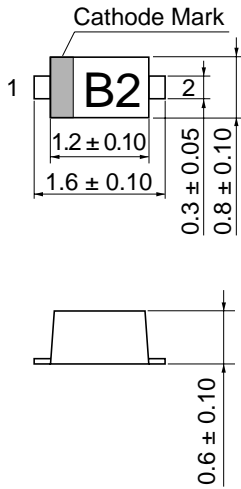


Fig.4 L_F Vs. Reverse voltage

HVC358B

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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