
HVC381B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-990 (Z)

Rev. 0
Oct. 2000

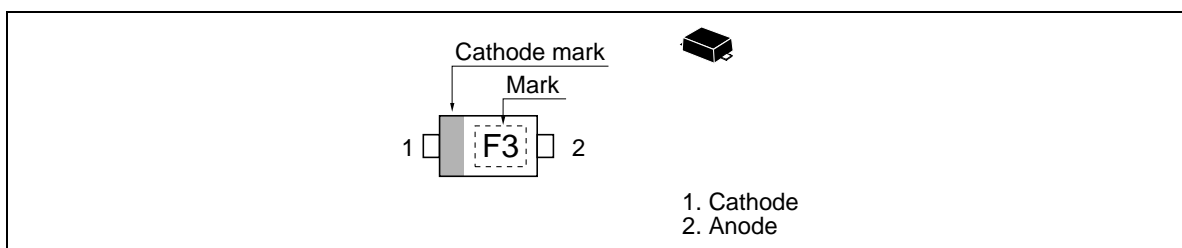
Features

- High capacitance ratio. ($n = 1.65$ 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
HVC381B	F3	UFP

Outline



HVC381B

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	10.0	—	11.0	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	C_3	5.8	—	6.4		$V_R = 3\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	1.65	—	—	—	C_1 / C_3
Series resistance	r_s	—	—	0.5	Ω	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Main Characteristic

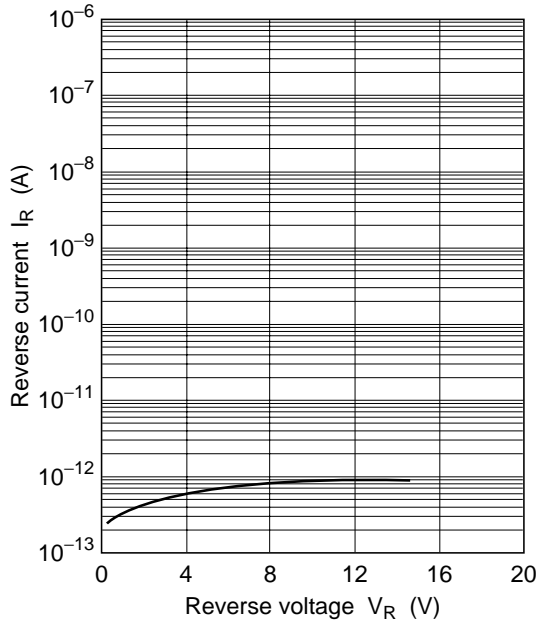


Fig.1 Reverse current Vs. Reverse voltage

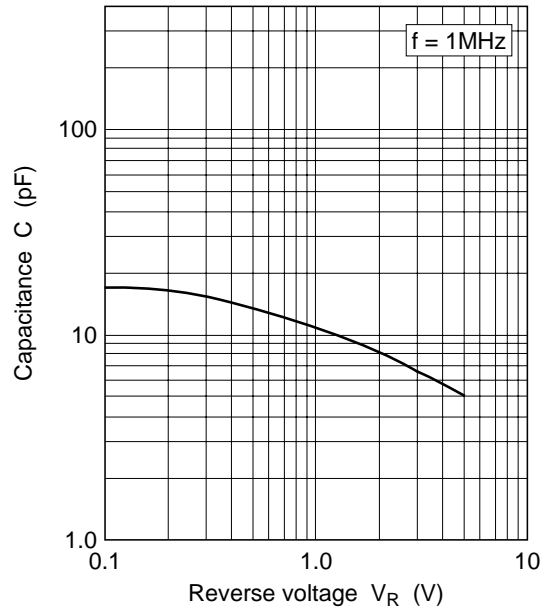


Fig.2 Capacitance Vs. Reverse voltage

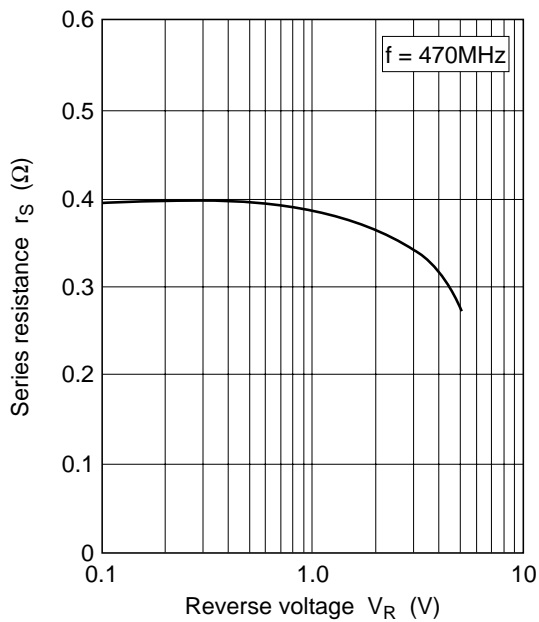


Fig.3 Series resistance Vs. Reverse voltage

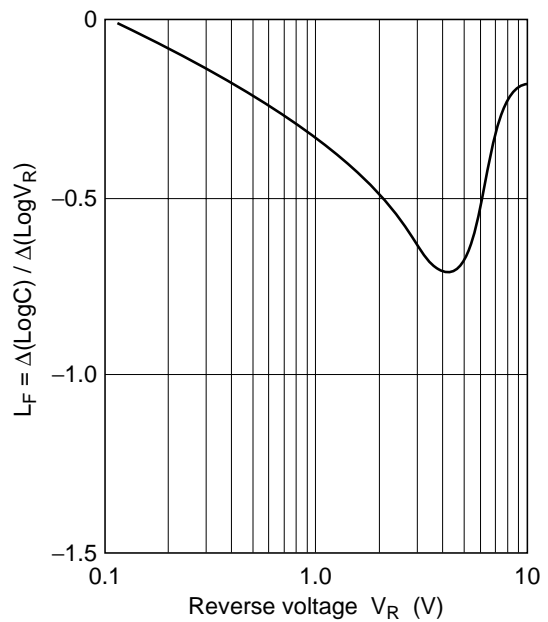
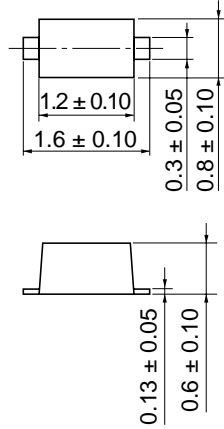


Fig.4 L_F Vs. Reverse voltage

HVC381B

Package Dimensions

Unit: mm



Hitachi Code	UFP
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.0016 g

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