
HVC376B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-687 (Z)

Rev 0

Oct. 1998

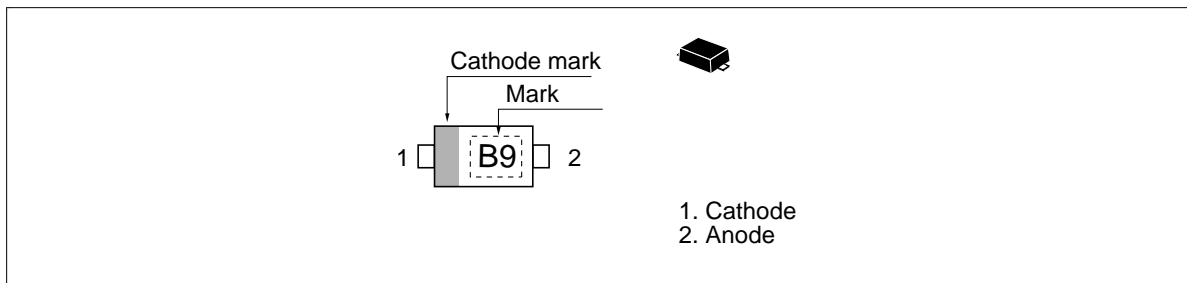
Features

- High capacitance ratio ($n=4.3\text{min}$) and good C-V linearity.
- High Q circuit can be composed due to low series resistance. ($r_s=0.8\Omega\text{max}$)
- To be usable at low voltage.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC376B	B9	UFP

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

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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		$V_R = 10V, T_a = 60\text{ °C}$
Capacitance	C_1	25.0	—	28.5	pF	$V_R = 1V, f = 1\text{ MHz}$
	C_4	4.8	—	6.8		$V_R = 4V, f = 1\text{ MHz}$
Capacitance ratio	n	4.3	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	0.8	Ω	$V_R = 1V, f = 470\text{ MHz}$

Main Characteristic

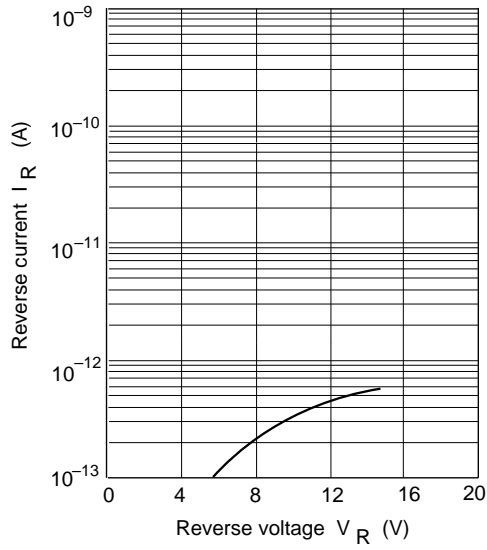


Fig.1 Reverse current Vs. Reverse voltage

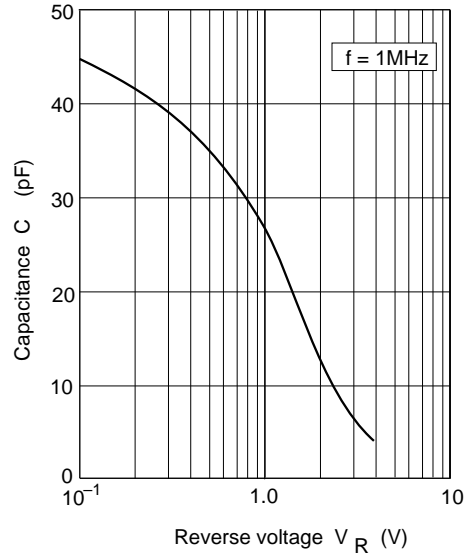


Fig.2 Capacitance Vs. Reverse voltage

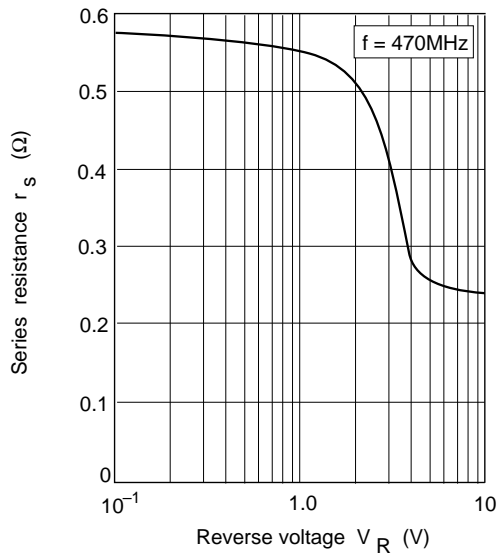
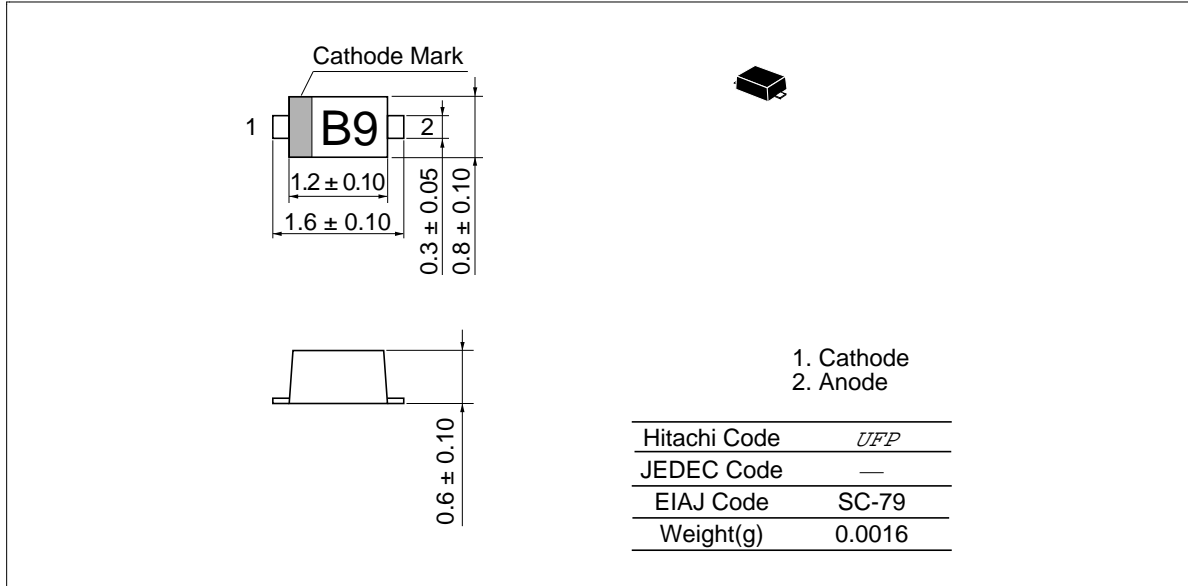


Fig.3 Series resistance Vs. Reverse voltage

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Package Dimensions

Unit : mm



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