
HVC383B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-823(Z)

Rev. 0
Oct. 1999

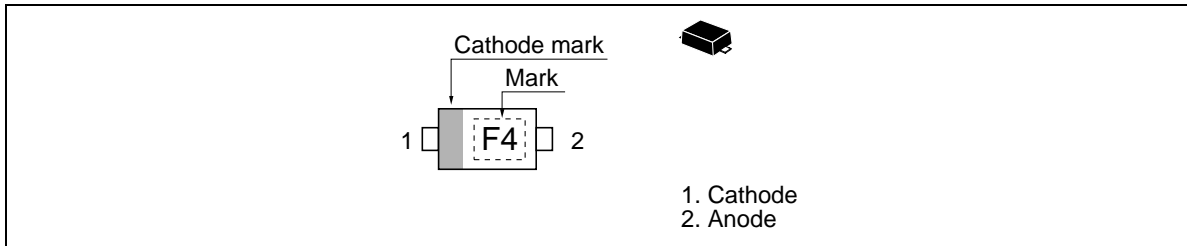
Features

- High capacitance ratio. ($n = 2.0$ min)
- Low series resistance. ($r_s = 0.5 \Omega$ max)
- Good C-V linearity.
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC383B	F4	UFP

Outline



HVC383B

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	$V_R = 15V$
	I_{R2}	—	—	100		$V_R = 15V, Ta = 60°C$
Capacitance	C_1	19.0	—	21.0	pF	$V_R = 1V, f = 1 MHz$
	C_4	8.50	—	10.0		$V_R = 4V, f = 1 MHz$
	C_7	4.50	—	5.5		$V_R = 7V, f = 1 MHz$
Capacitance ratio	n_1	2.00	—	—	—	C_1 / C_4
	n_2	3.50	—	—	—	C_1 / C_7
Series resistance	r_s	—	—	0.5	Ω	$V_R = 1V, f = 470 MHz$

Main Characteristic

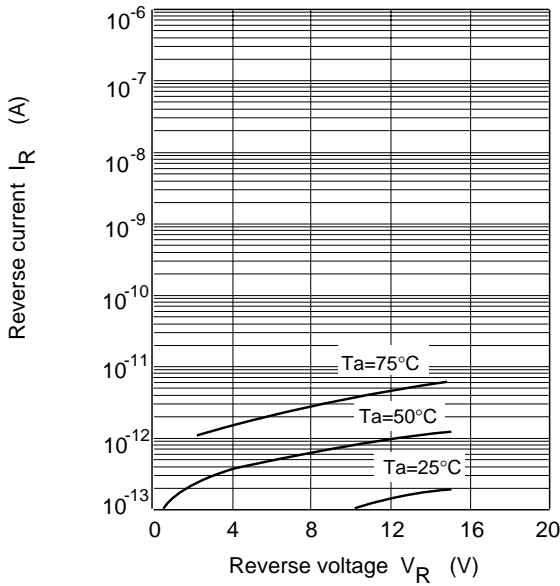


Fig.1 Reverse current Vs. Reverse voltage

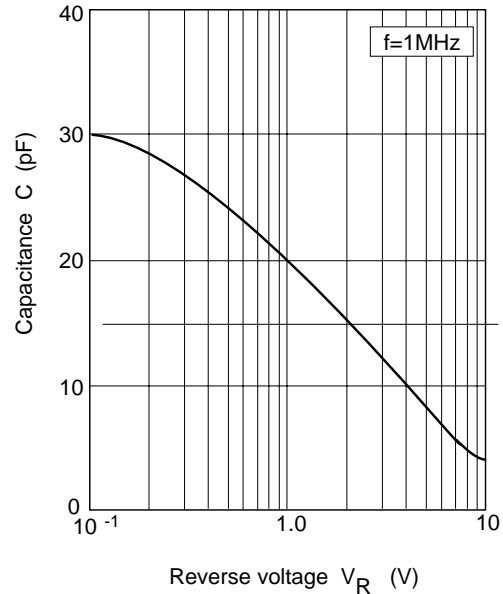


Fig.2 Capacitance Vs. Reverse voltage

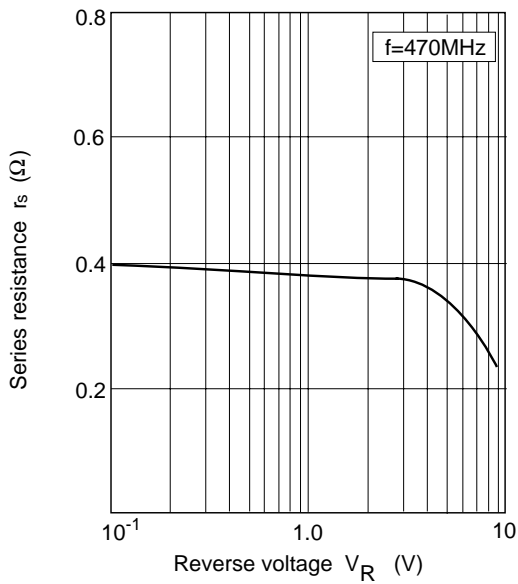


Fig.3 Series resistance Vs. Reverse voltage

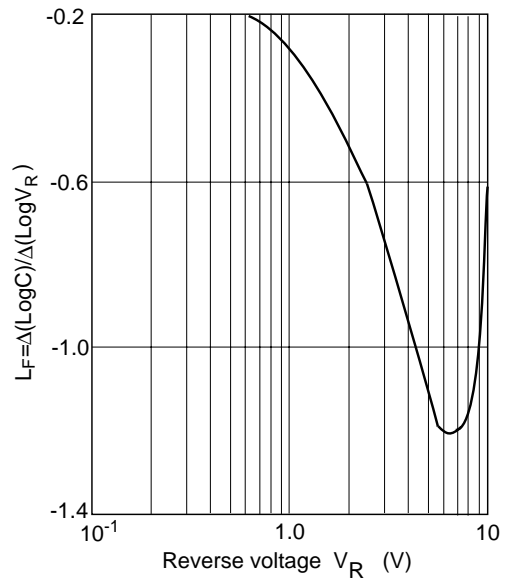
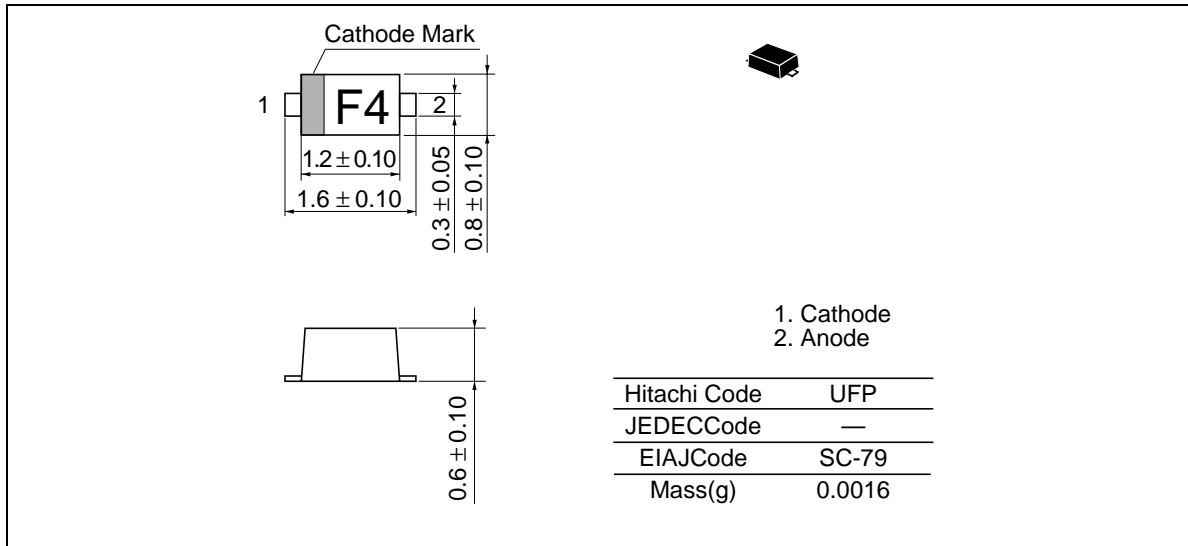


Fig.4 L_F Vs. Reverse voltage

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Package Dimensions

Unit : mm



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