

HVC379B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-817 (Z)

Rev 0

Aug. 1999

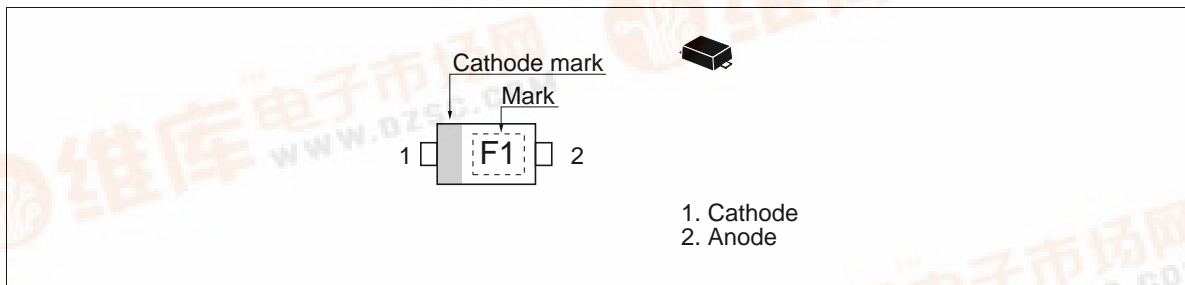
Features

- High capacitance ratio. ($n = 1.80\text{min}$)
- Low series resistance. ($r_s = 1.0\Omega\text{max}$)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC379B	F1	UFP

Outline



HVC379B

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	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	$V_R = 10V$
	I_{R2}	—	—	100		$V_R = 10V, T_a = 60°C$
Capacitance	$C_{0.5}$	2.90	—	3.20	pF	$V_R = 0.5V, f = 1MHz$
	$C_{2.5}$	1.25	—	1.53		$V_R = 2.5V, f = 1MHz$
Capacitance ratio	n	1.80	—	—	—	$C_{0.5}/C_{2.5}$
Series resistance	r_s	—	—	1.0	Ω	$V_R = 1V, f = 470MHz$

Main Characteristic

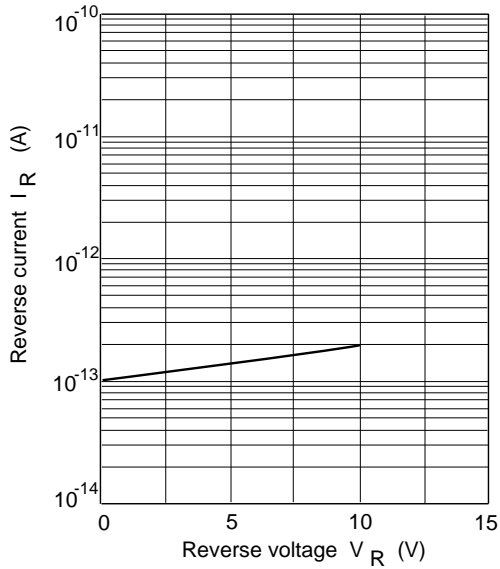


Fig.1 Reverse current Vs. Reverse voltage

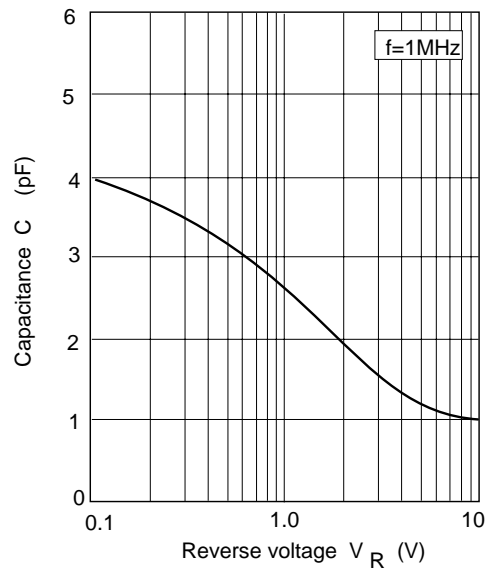


Fig.2 Capacitance Vs. Reverse voltage

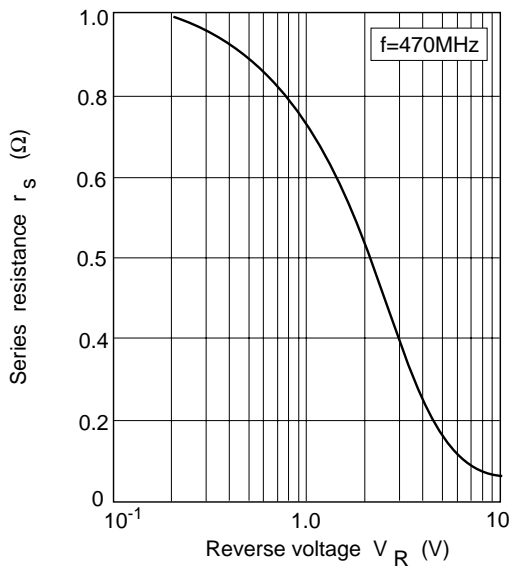


Fig.3 Series resistance Vs. Reverse voltage

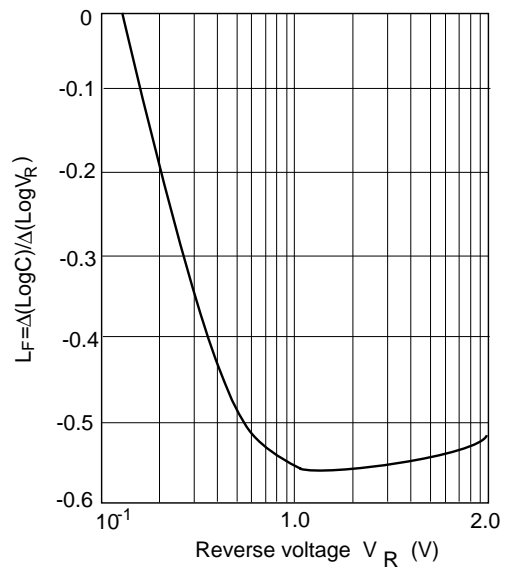
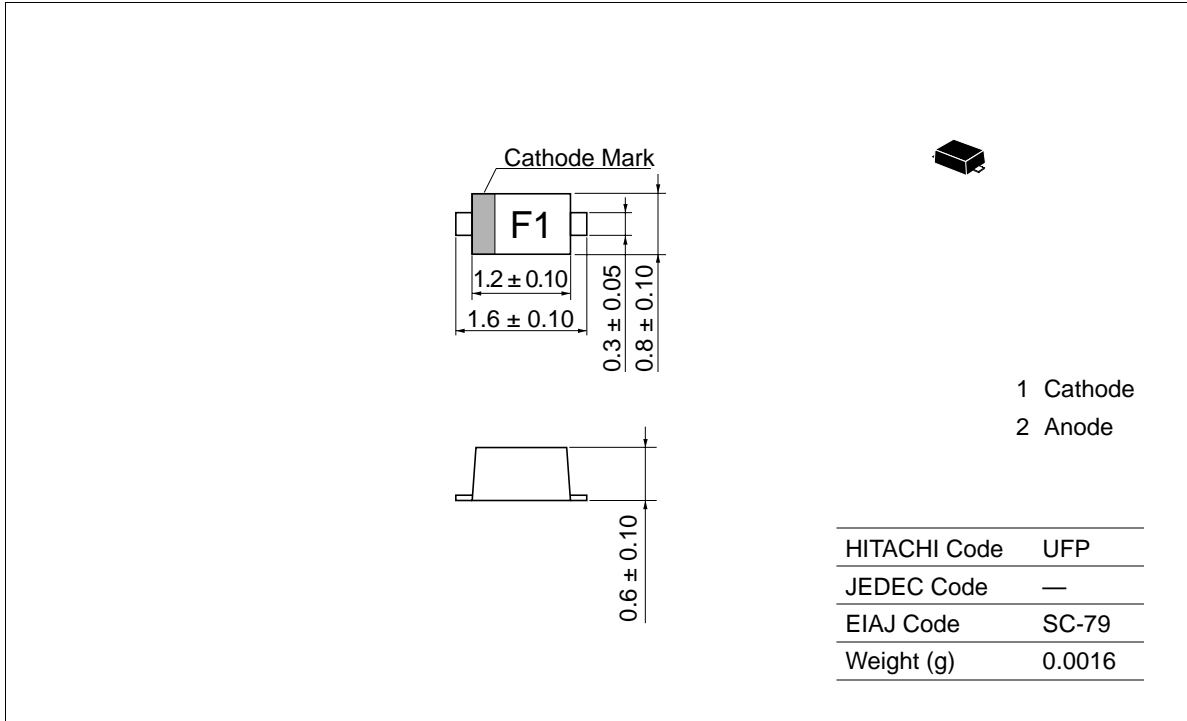


Fig.4 Linearity factor Vs. Reverse voltage

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Package Dimensions

Unit : mm



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