

## HVC397C

### Variable Capacitance Diode for VCO

REJ03G0021-0100  
(Previous: ADE-208-1561)  
Rev.1.00  
Apr.25.2003

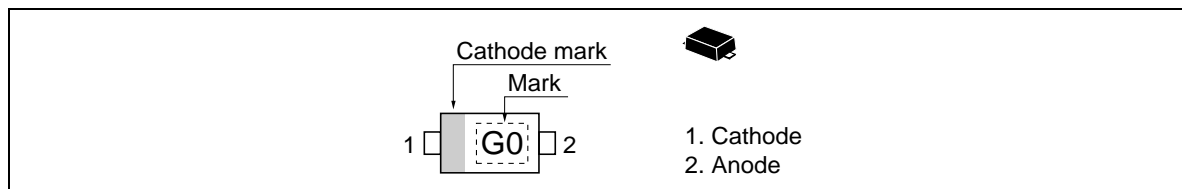
#### Features

- High capacitance ratio. ( $n = 2.9$  min)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

#### Ordering Information

Type No.	Laser Mark	Package Code
HVC397C	G0	UFP

#### Pin Arrangement



## HVC397C

### 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	$V_R = 10\text{ V}$
	$I_{R2}$	—	—	50		$V_R = 10\text{ V}$ , Ta = 60°C
Capacitance	$C_1$	27.0	—	28.5	pF	$V_R = 1\text{ V}$ , f = 1 MHz
	$C_2$	18.0	—	20.0		$V_R = 2\text{ V}$ , f = 1 MHz
	$C_4$	6.8	—	8.5		$V_R = 4\text{ V}$ , f = 1 MHz
Capacitance ratio	$n_1$	1.3	—	—	—	$C_1 / C_2$
	$n_2$	2.9	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	1.2	$\Omega$	$V_R = 1\text{ V}$ , f = 470 MHz

## Main Characteristic

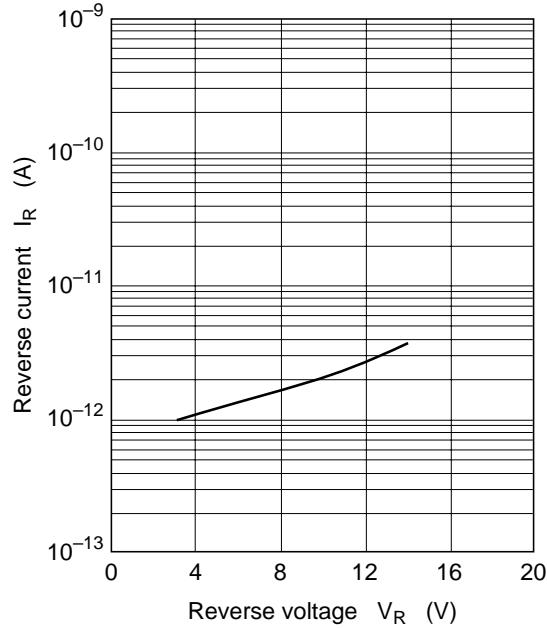


Fig.1 Reverse current vs. Reverse voltage

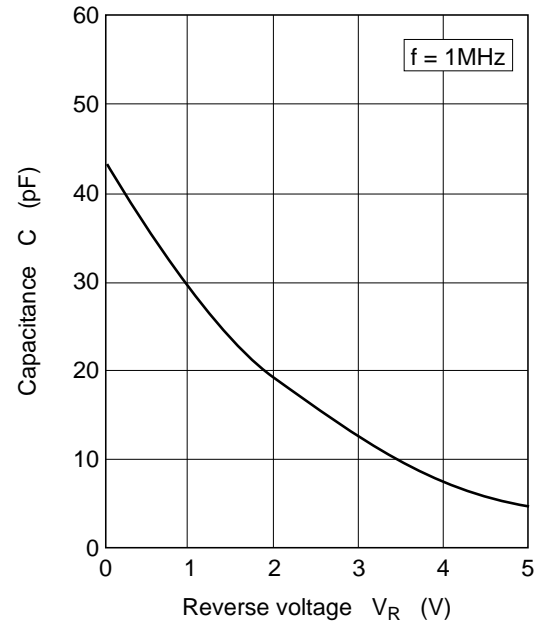


Fig.2 Capacitance vs. Reverse voltage

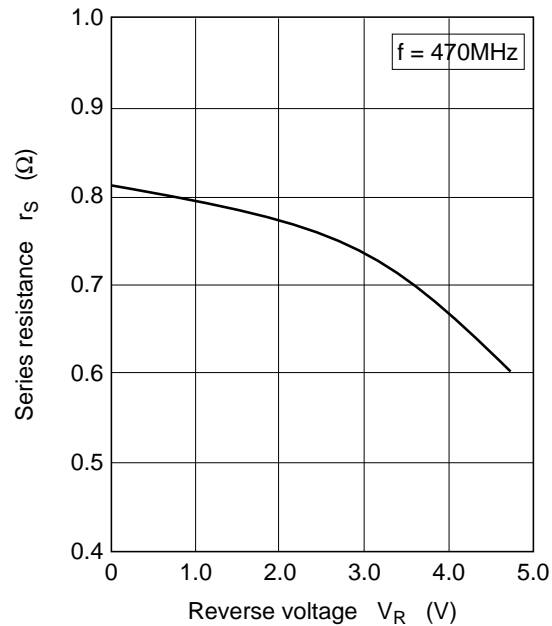


Fig.3 Series resistance vs. Reverse voltage

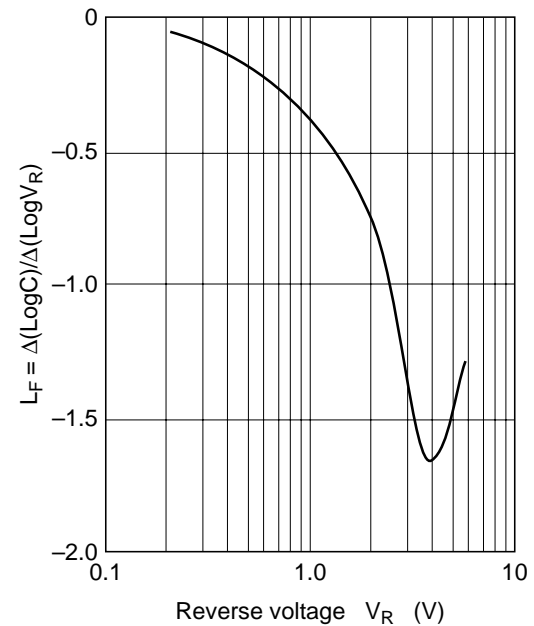
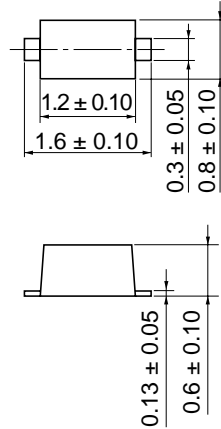


Fig.4 Linearity factor vs. Reverse voltage

## Package Dimensions

As of January, 2003

Unit: mm



Package Code	UFP
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.0016 g

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