HVC397C

Variable Capacitance Diode for VCO

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

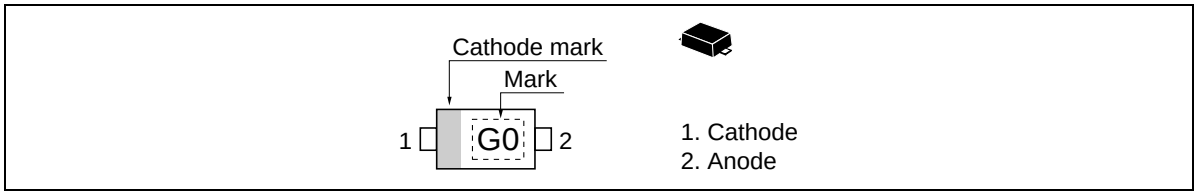
Features

- 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



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 V
	I_{R2}	—	—	50		V_R = 10 V, Ta = 60°C
Capacitance	C_1	27.0	—	28.5	pF	V_R = 1 V, f = 1 MHz
	C_2	18.0	—	20.0		V_R = 2 V, f = 1 MHz
	C_4	6.8	—	8.5		V_R = 4 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	Ω	V_R = 1 V, f = 470 MHz

Main Characteristic

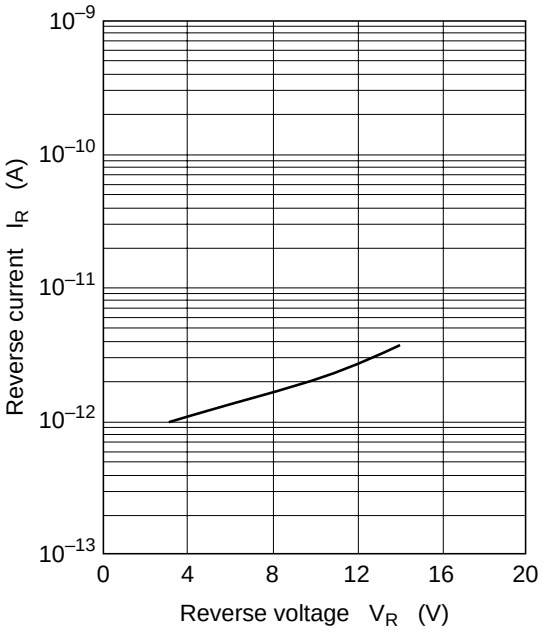


Fig.1 Reverse current vs. Reverse voltage

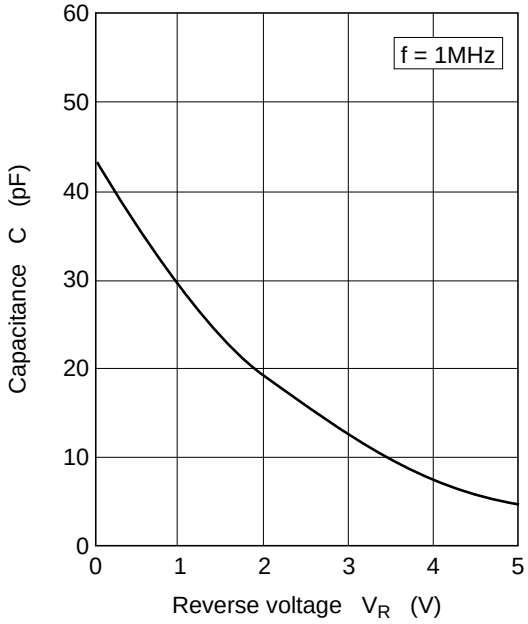


Fig.2 Capacitance vs. Reverse voltage

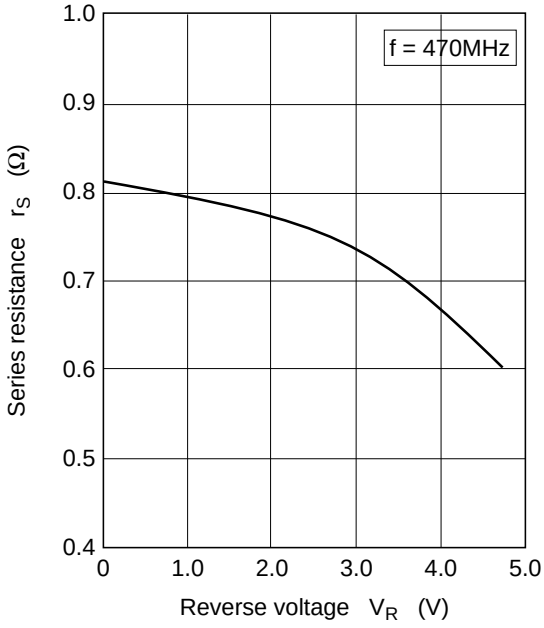


Fig.3 Series resistance vs. Reverse voltage

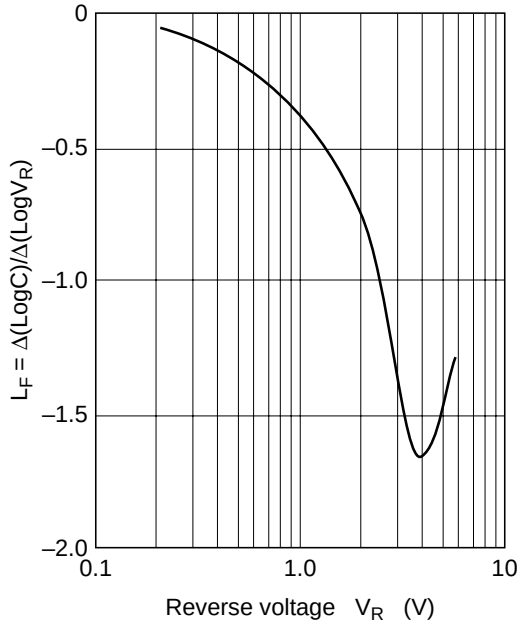
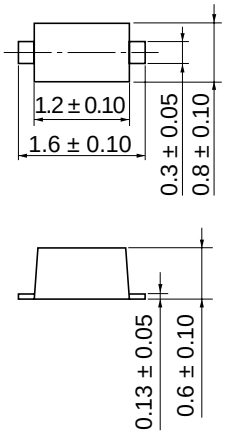


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003
Unit: mm



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

Renesas Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

http://www.renesas.com

Colophon 0.0