HVC388C

Variable Capacitance Diode for VCO

HITACHI

ADE-208-1585 (Z)

Rev.0
Jan. 2003

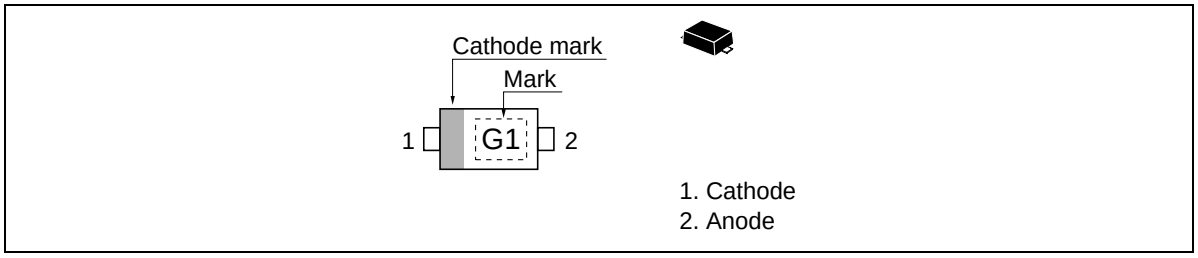
Features

- High capacitance ratio. (n = 1.70 min)
- Low series resistance. (rs = 0.75 Ω max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC388C	G1	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 = 15 V
	I_{R2}	—	—	50		V_R = 15 V, Ta = 60°C
Capacitance	C_1	3.00	—	3.50	pF	V_R = 1 V, f = 1 MHz
	C_3	1.57	—	1.82		V_R = 3 V, f = 1 MHz
Capacitance ratio	n	1.70	—	—	—	C_1 / C_3
Series resistance	r_S	—	—	0.75	Ω	V_R = 1 V, f = 470 MHz

Main Characteristic

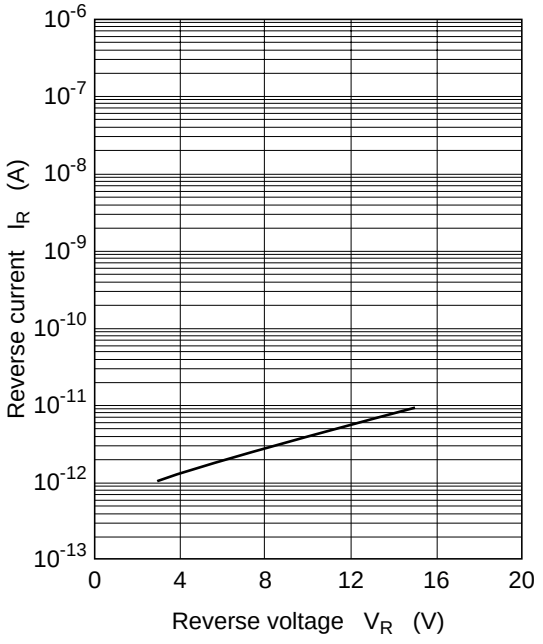


Fig.1 Reverse current vs. Reverse voltage

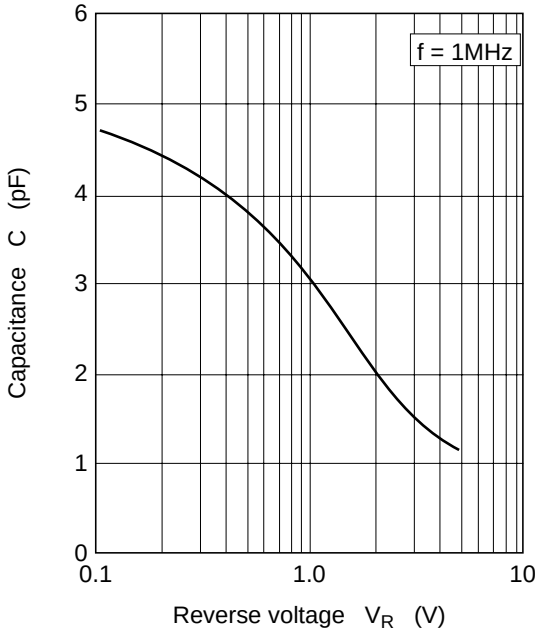


Fig.2 Capacitance vs. Reverse voltage

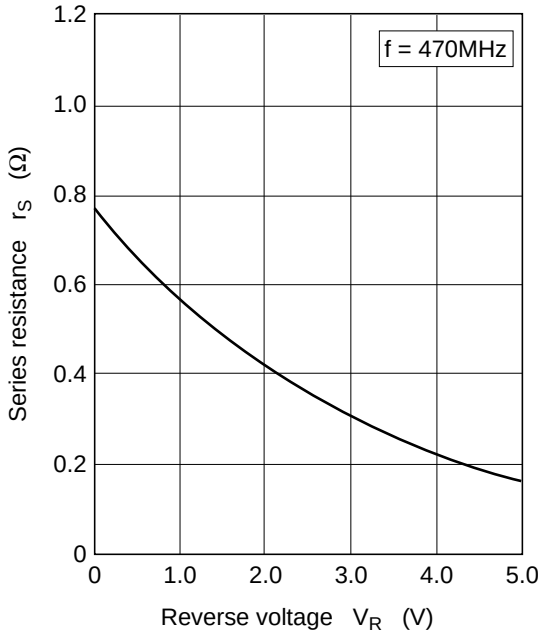


Fig.3 Series resistance vs. Reverse voltage

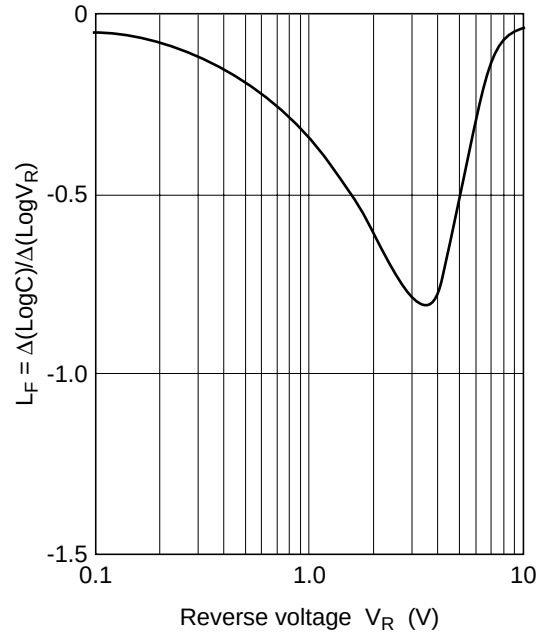
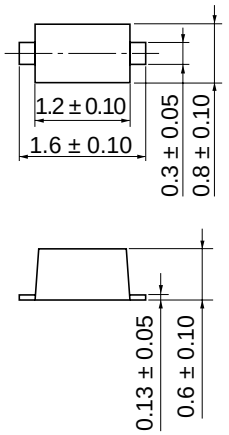


Fig.4 L_F vs. Reverse voltage

Package Dimensions

As of July, 2002

Unit: mm



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

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