HVC383B

Variable Capacitance Diode for VCO

REJ03G0092-0100Z
(Previous: ADE-208-823)
Rev.1.00
Sep.17.2003

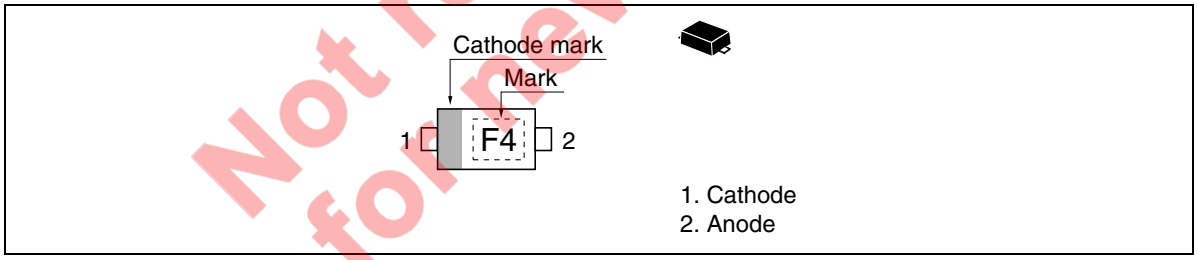
Features

- High capacitance ratio. (n = 2.0 min)
- Low series resistance. (rs = 0.5 Ω 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

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}	—	—	100		V_R = 15 V, Ta = 60°C
Capacitance	C_1	19.0	—	21.0	pF	V_R = 1 V, f = 1 MHz
	C_4	8.50	—	10.0		V_R = 4 V, f = 1 MHz
	C_7	4.50	—	5.5		V_R = 7 V, 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 = 1 V, f = 470 MHz

Main Characteristic

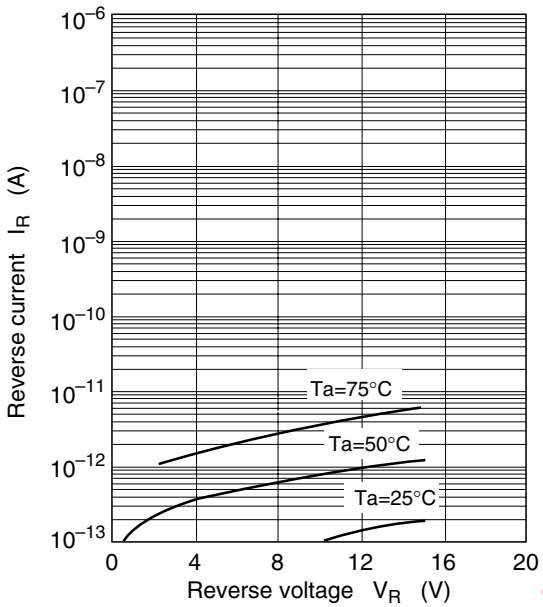


Fig.1 Reverse current vs. Reverse voltage

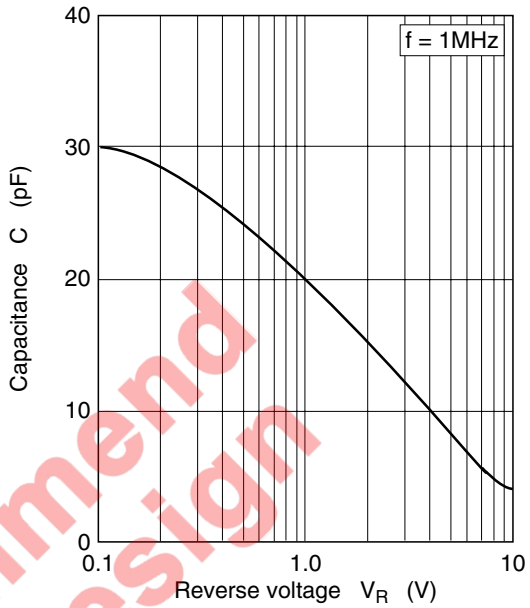


Fig.2 Capacitance vs. Reverse voltage

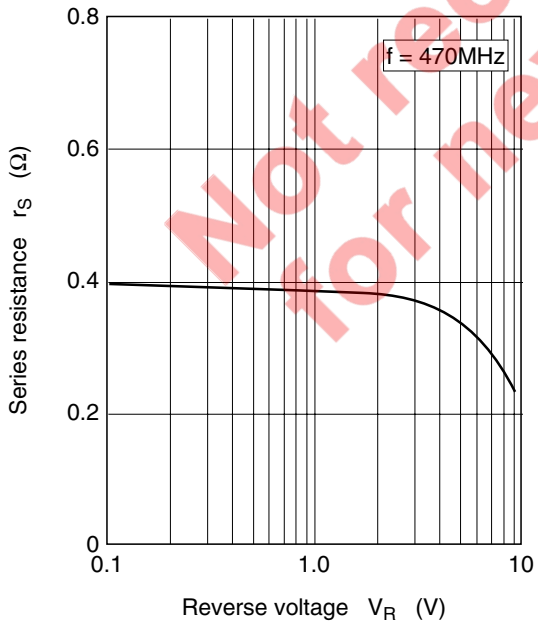


Fig.3 Series resistance vs. Reverse voltage

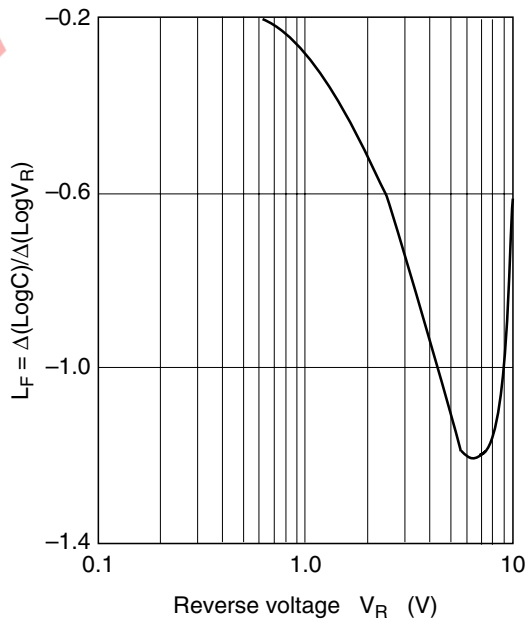
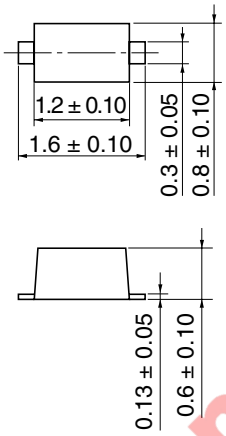


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003
Unit: mm



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

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Colophon 1.0

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April 1st, 2010
Renesas Electronics Corporation

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