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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HVC379B

Variable Capacitance Diode for VCO

REJ03G0492-0100
 (Previous: ADE-208-817)
 Rev.1.00
 Jan 19, 2005

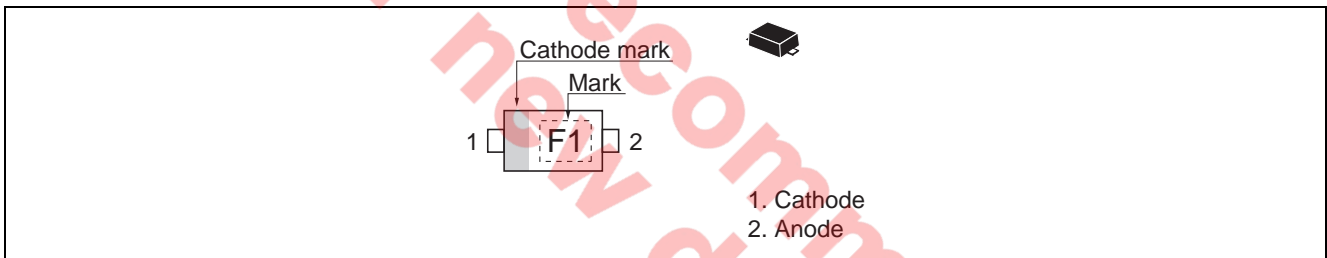
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HVC379B	F1	UFP

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-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}	—	—	100		$V_R = 10$ V, $T_a = 60$ °C
Capacitance	$C_{0.5}$	2.90	—	3.20	pF	$V_R = 0.5$ V, $f = 1$ MHz
	$C_{2.5}$	1.25	—	1.53		$V_R = 2.5$ V, $f = 1$ MHz
Capacitance ratio	n	1.80	—	—	—	$C_{0.5} / C_{2.5}$
Series resistance	r_s	—	—	1.0	Ω	$V_R = 1$ V, $f = 470$ MHz

Not recommend
for new design

Main Characteristic

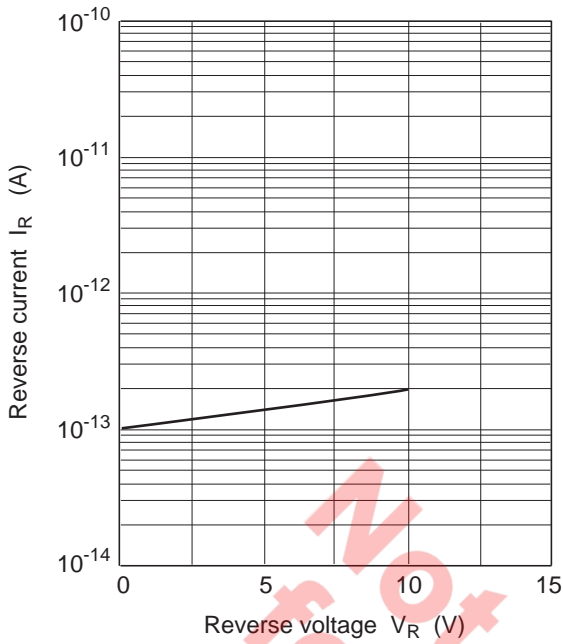


Fig.1 Reverse current vs. Reverse voltage

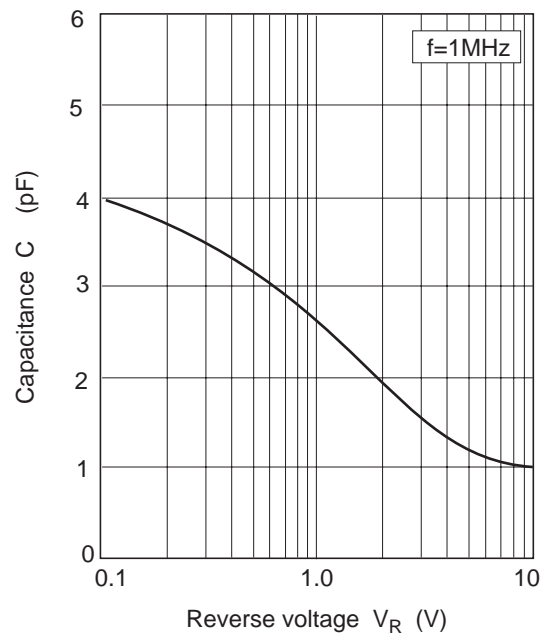


Fig.2 Capacitance vs. Reverse voltage

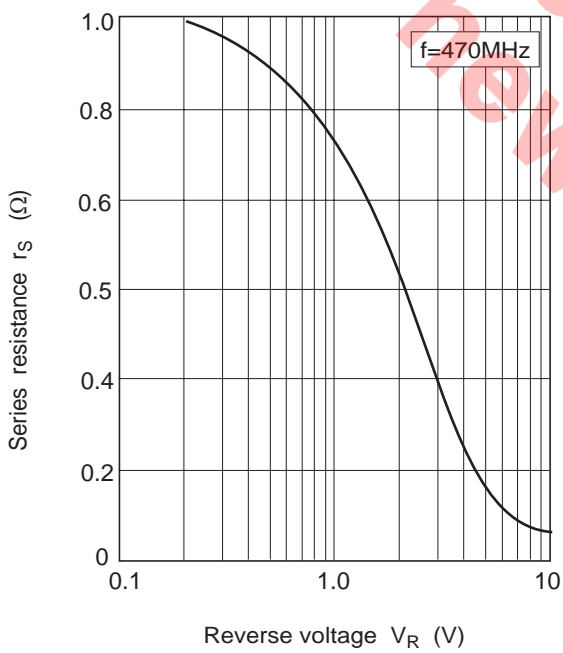


Fig.3 Series resistance vs. Reverse voltage

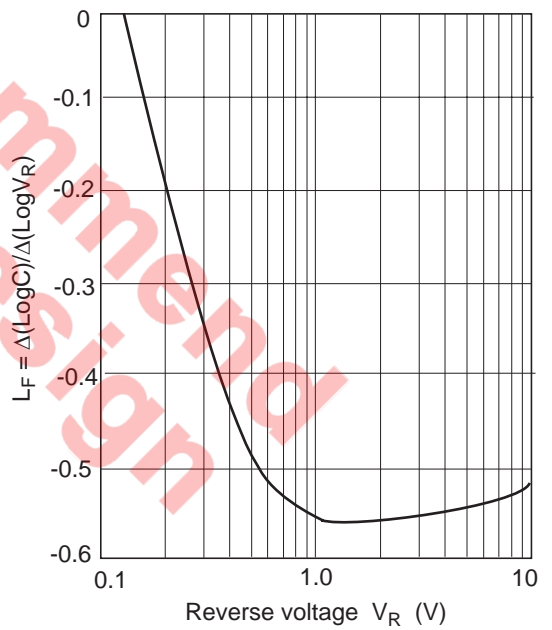
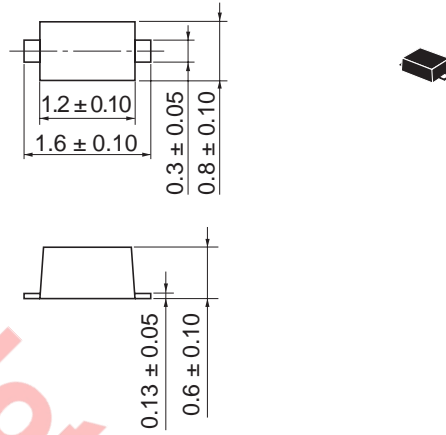


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003
Unit: mm



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

Not recommend
for new design

Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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