HVC375B

Variable Capacitance Diode for VCO

REJ03G0064-0100Z
(Previous: ADE-208-625)
Rev.1.00
Jul.24.2003

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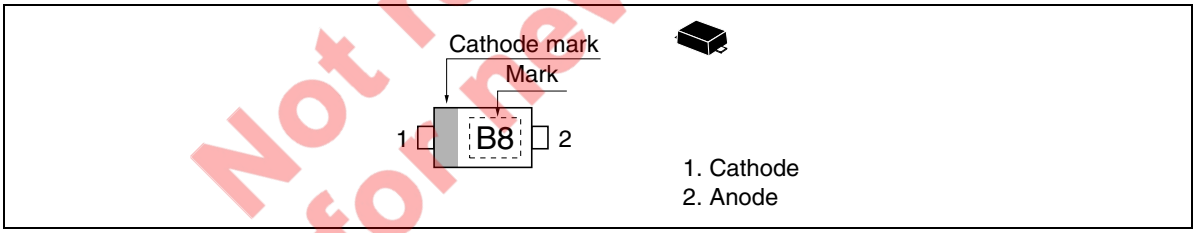
Features

- Narrow terminal Capacitance deviation.
- Low series resistance. (r_s = 1.1 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
HVC375B	B8	UFP

Pin Arrangement



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Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	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}	—	—	100		V_R = 10 V, Ta = 60°C
Capacitance	C_1	15.0	—	16.5	pF	V_R = 1 V, f = 1 MHz
	C_3	5.0	—	6.0		V_R = 3 V, f = 1 MHz
	C_4	3.3	—	4.0		V_R = 4 V, f = 1 MHz
Capacitance ratio	n	4.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	1.1	Ω	V_R = 2 V, f = 470 MHz

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Main Characteristic

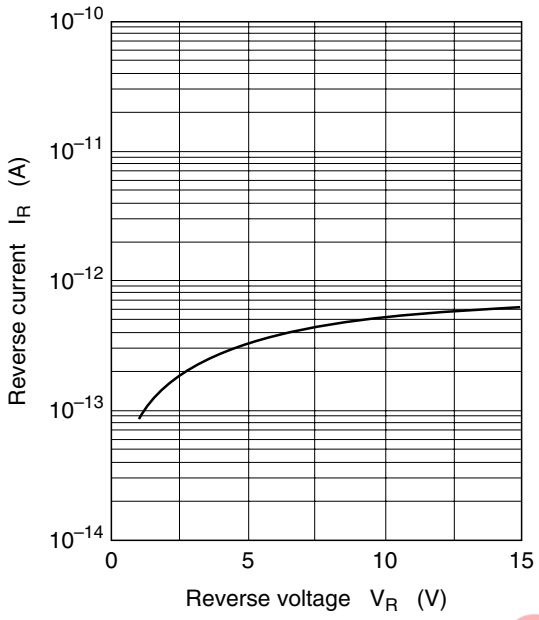


Fig.1 Reverse current vs. Reverse voltage

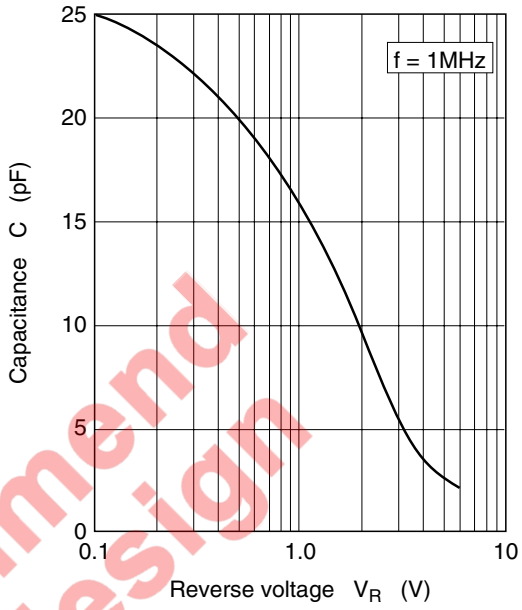


Fig.2 Capacitance vs. Reverse voltage

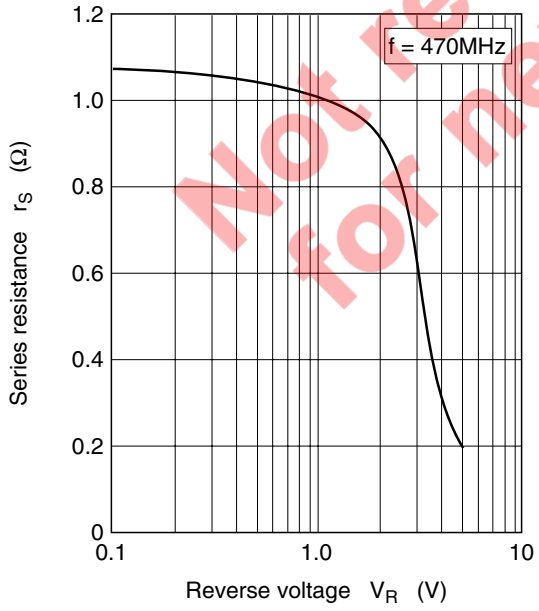


Fig.3 Series resistance vs. Reverse voltage

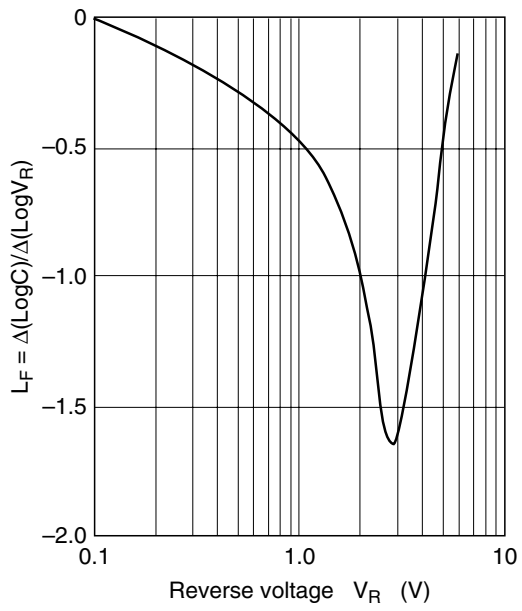


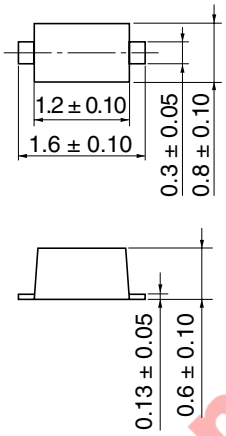
Fig.4 Linearity factor vs. Reverse voltage

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Package Dimensions

As of January, 2003
Unit: mm



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

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