

HVC374B

Variable Capacitance Diode for VCO

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Rev.2.00
Jul 01, 2005

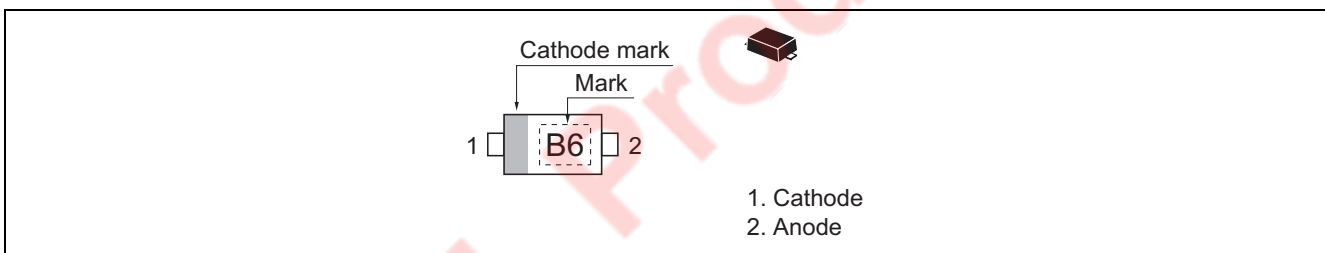
Features

- High capacitance ratio and good C-V linearity.
- To be usable at low voltage.
- Low operation current.
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HVC374B	B6	UFP	PWSF0002ZA-A (UFP)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	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	$V_R = 10\text{ V}$
	I_{R2}	—	—	100		$V_R = 10\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_1	21.50	—	24.00	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	C_2	12.50	—	14.50		$V_R = 2\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	1.680	—	1.750	—	C_1/C_2
Series resistance	r_s	—	—	1.20	Ω	$V_R = 1\text{ V}, f = 470\text{ MHz}$

EOL Product

Main Characteristic

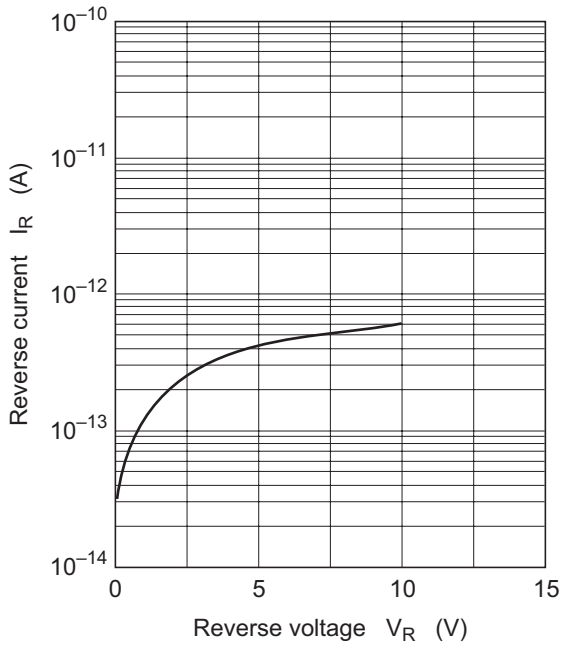


Fig.1 Reverse current vs. Reverse voltage

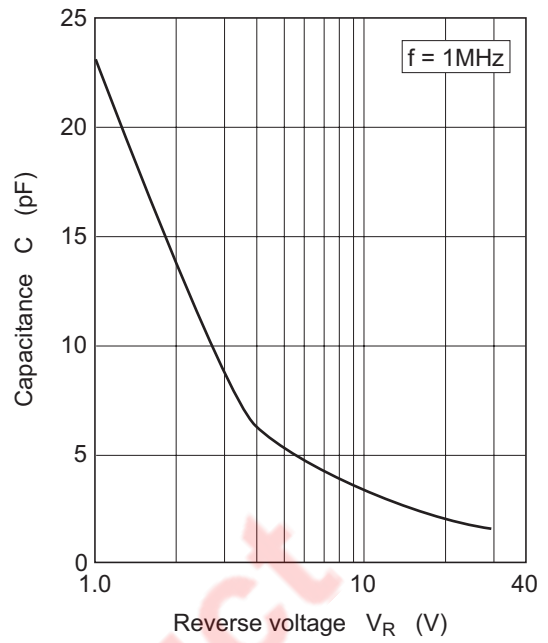


Fig.2 Capacitance vs. Reverse voltage

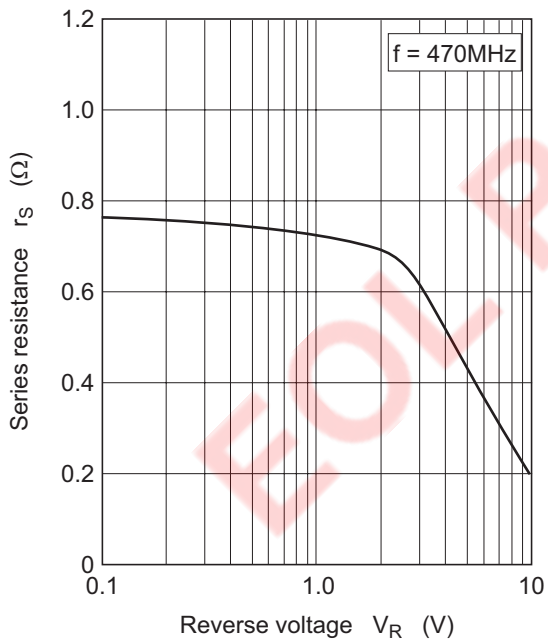


Fig.3 Series resistance vs. Reverse voltage

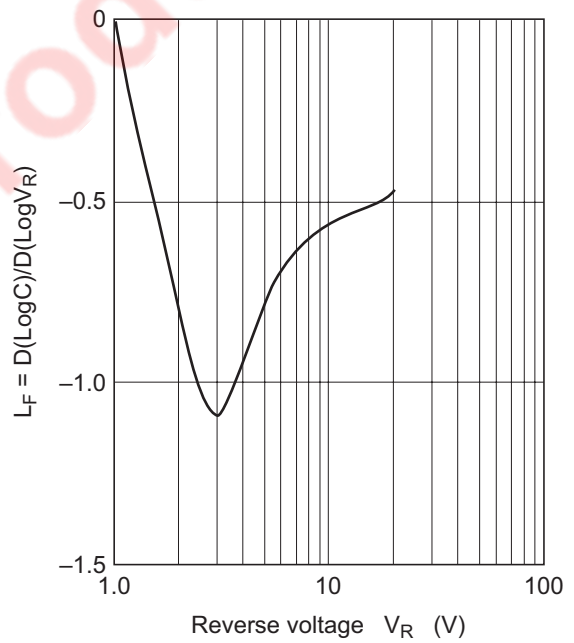
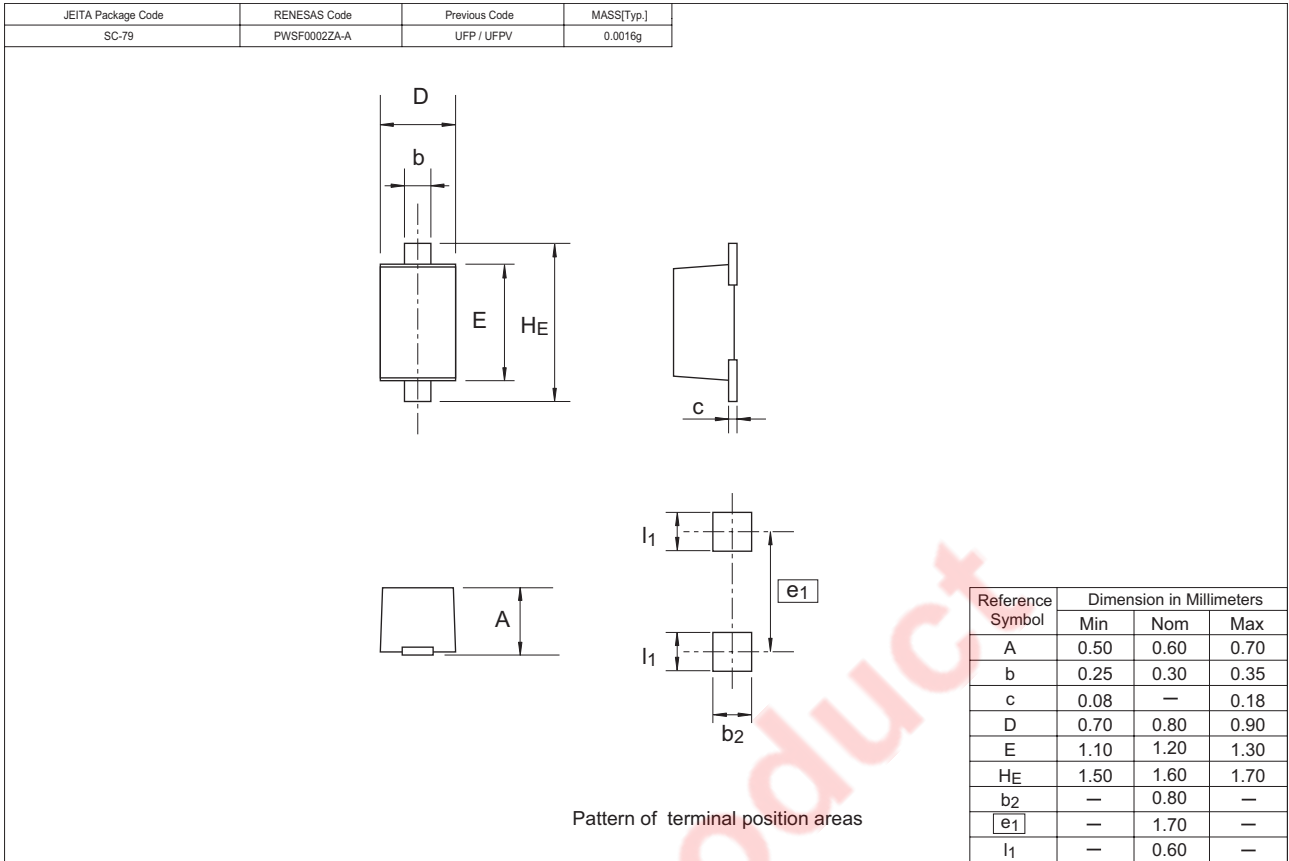


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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