

HVD374B

Variable Capacitance Diode for VCO

REJ03G0040-0200
Rev.2.00
Jul 01, 2005

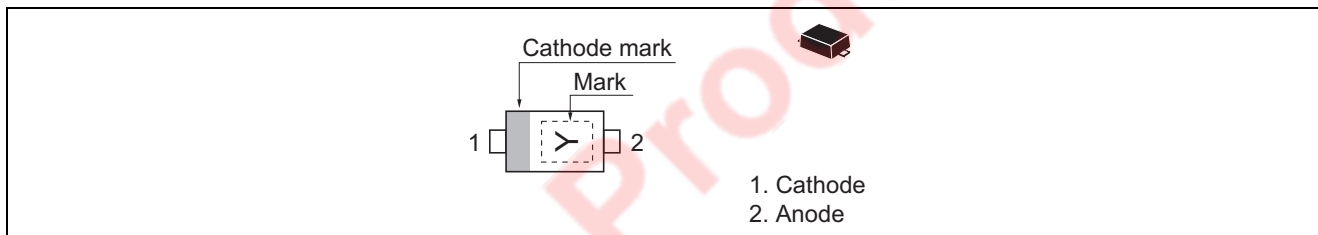
Features

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

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HVD374B	Y	SFP	PUSF0002ZB-A (SFP)

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	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: The material of lead is exposed for cutting plane. Therefore, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic

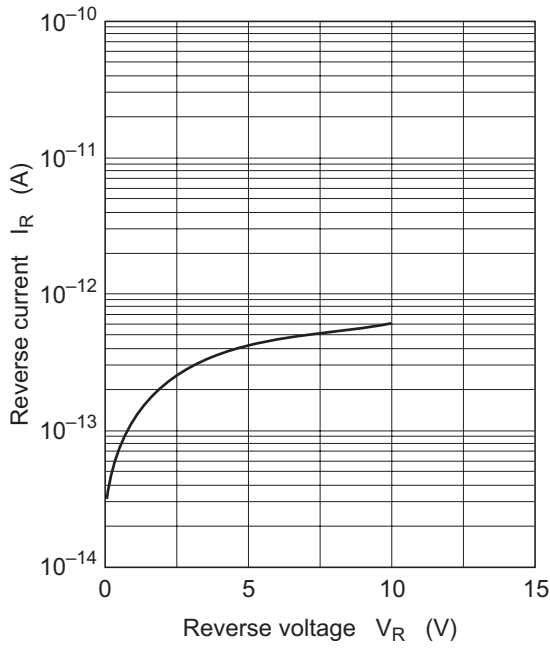


Fig.1 Reverse current vs. Reverse voltage

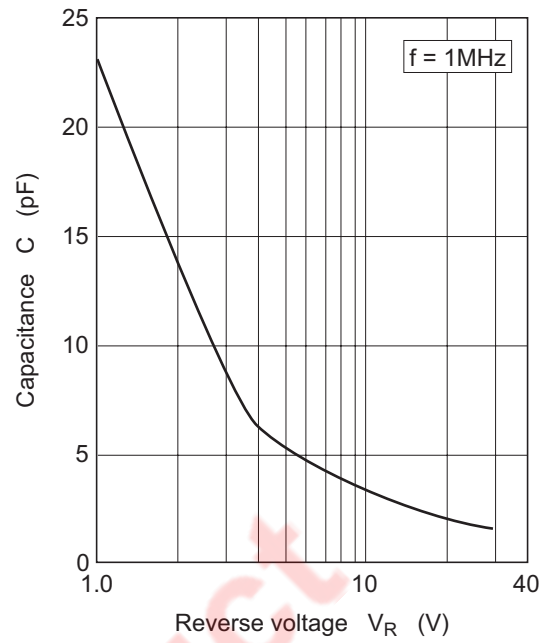


Fig.2 Capacitance vs. Reverse voltage

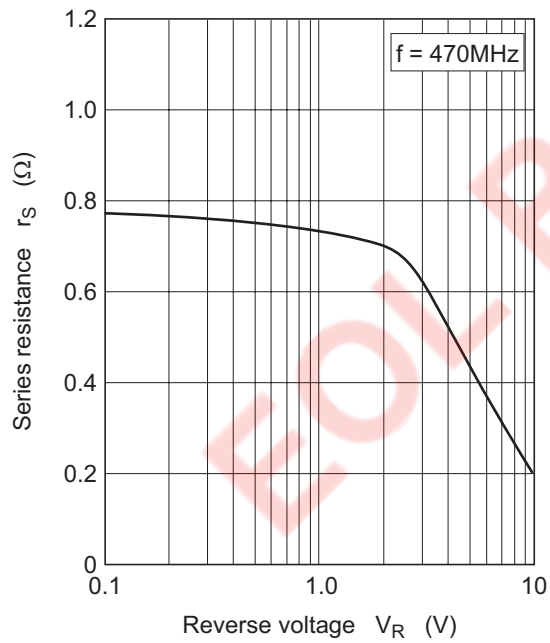


Fig.3 Series resistance vs. Reverse voltage

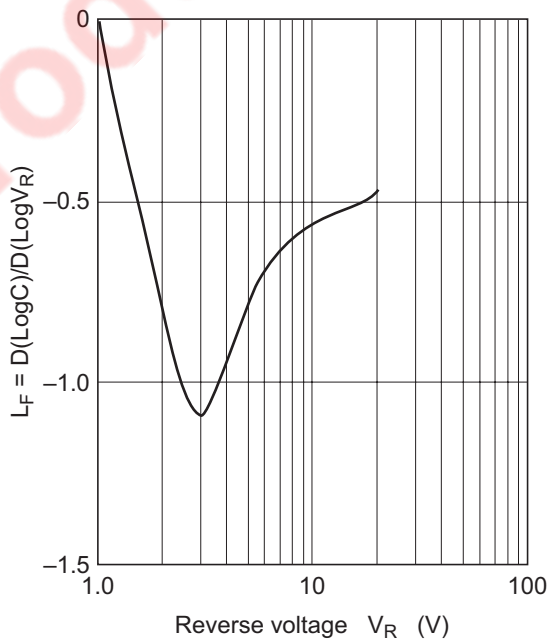
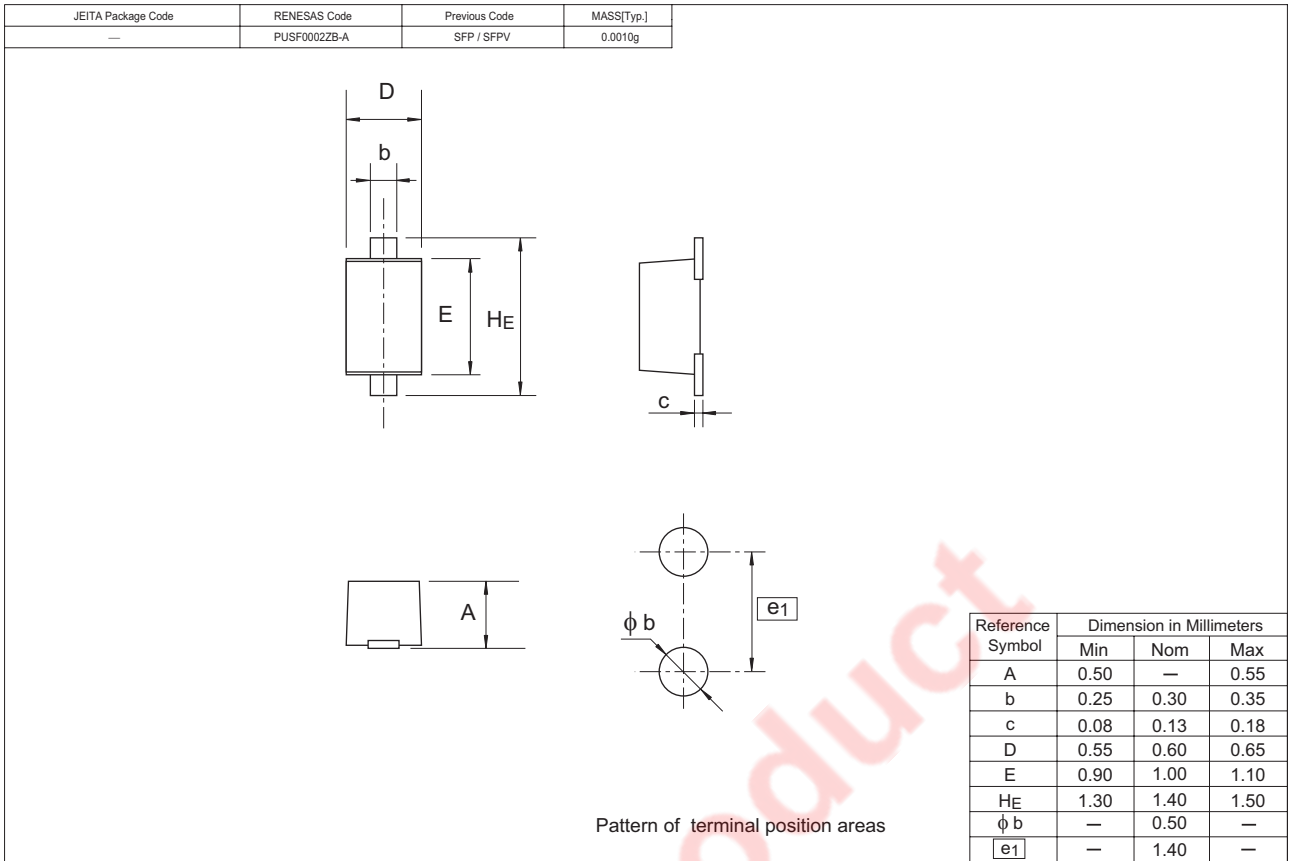


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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