

HVD376B

Variable Capacitance Diode for VCO

REJ03G0540-0200

Rev.2.00

Apr 26, 2005

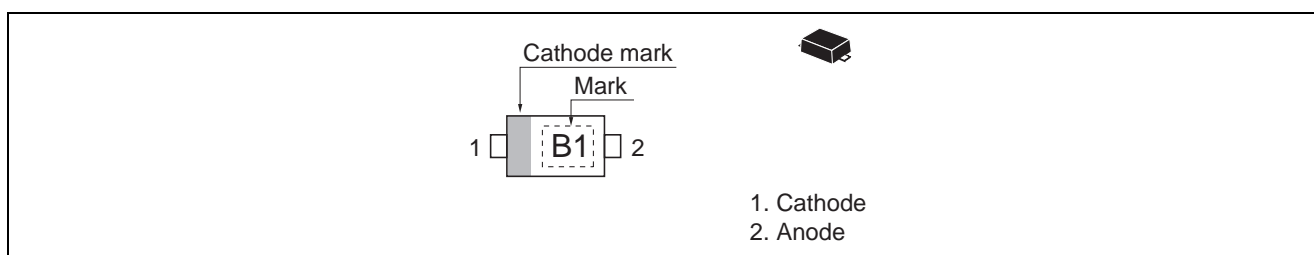
Features

- High capacitance ratio ($n = 4.3\text{min}$) and good C-V linearity.
- High Q circuit can be composed due to low series resistance. ($r_s = 0.8\ \Omega\ \text{max}$)
- 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)
HVD376B	B1	SFP	PUSF0002ZB-A (SFP)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	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	$C_{0.2}$	39.5	—	44.5	pF	$V_R = 0.2\text{ V}, f = 1\text{ MHz}$
	C_1	25.0	—	28.5		$V_R = 1\text{ V}, f = 1\text{ MHz}$
	$C_{2,3}$	8.75	—	12.05		$V_R = 2.3\text{ V}, f = 1\text{ MHz}$
	C_4	4.80	—	6.80		$V_R = 4\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n_1	4.30	—	—	—	C_1/C_4
	n_2	3.55	—	—	—	$C_{0.2}/C_{2,3}$
Series resistance	r_s	—	—	0.8	Ω	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

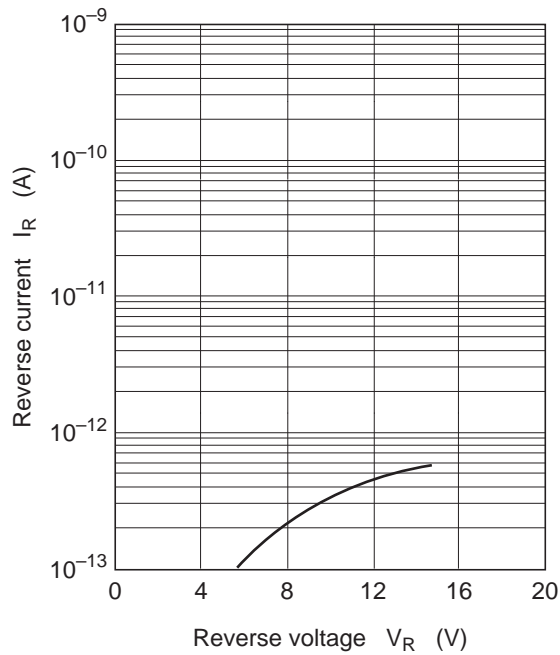


Fig.1 Reverse current vs. Reverse voltage

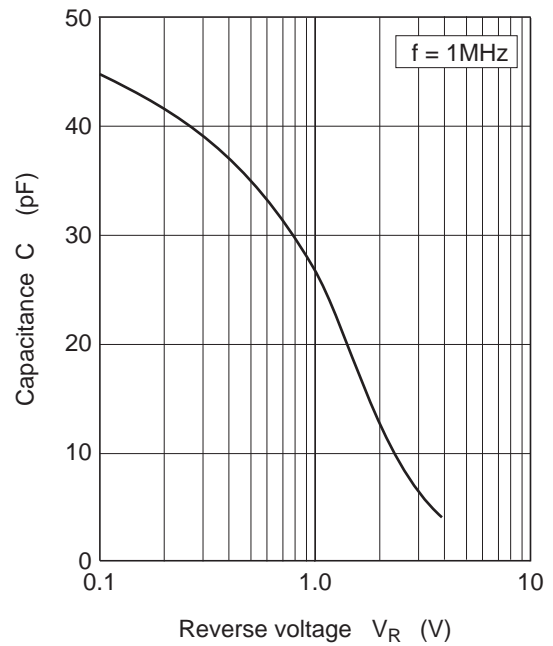


Fig.2 Capacitance vs. Reverse voltage

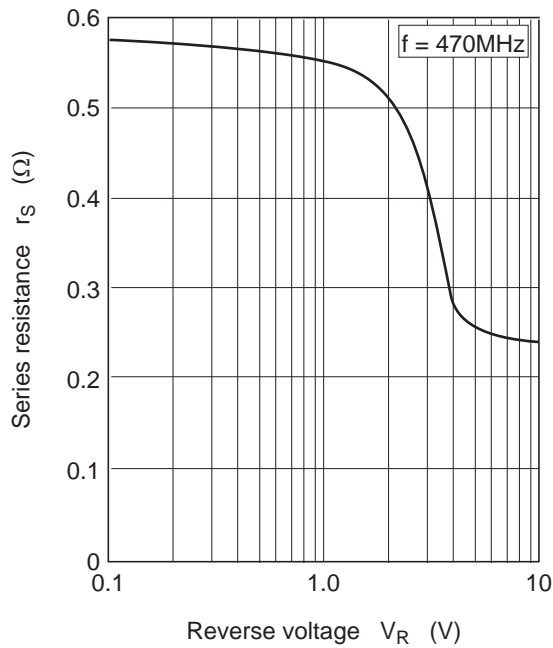
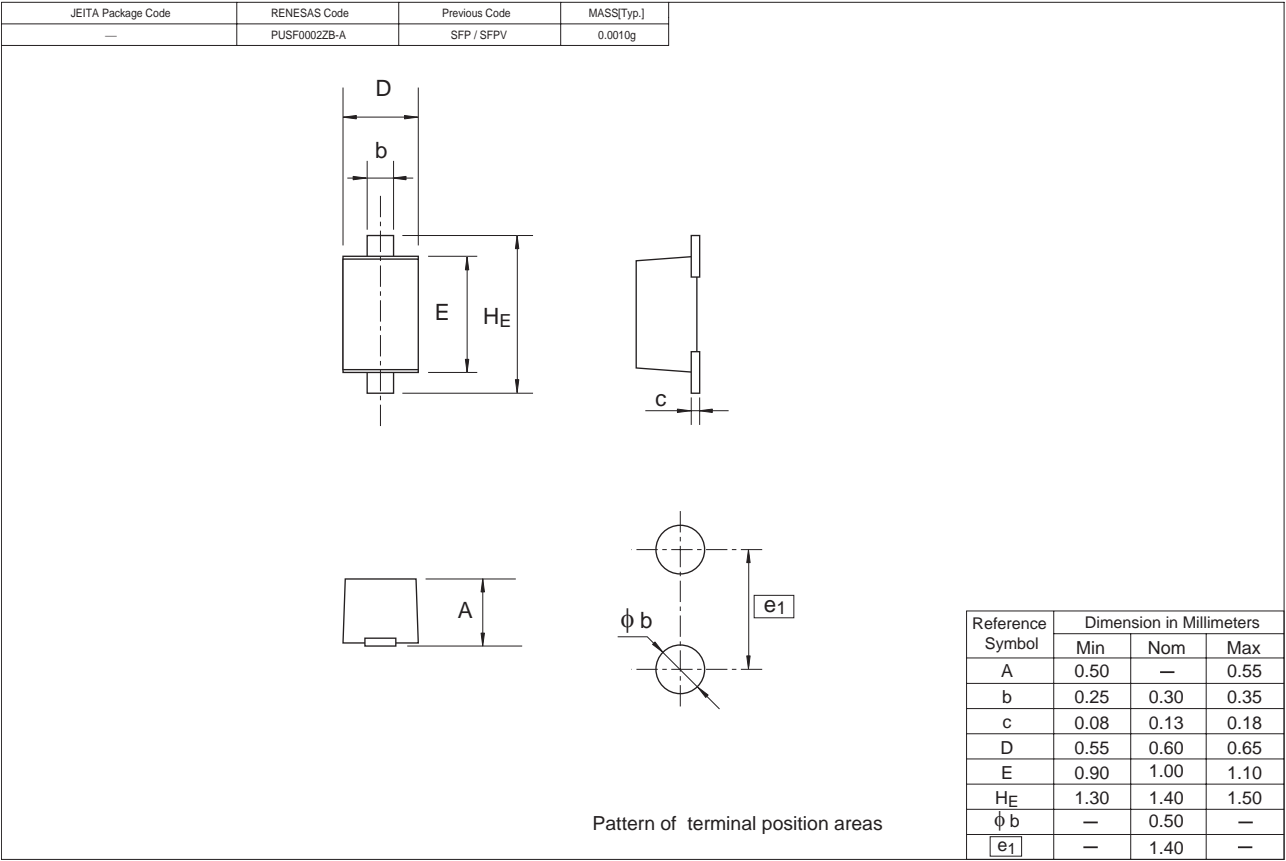


Fig.3 Series resistance vs. Reverse voltage

Package Dimensions



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