HVD369B

Variable Capacitance Diode for VCO

REJ03G0502-0100
(Previous: ADE-208-850)
Rev.1.00
Jan 24, 2005

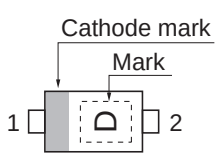
Features

- Low capacitance and to be usable at GHz.
- High capacitance ratio. (n = 2.3 min)
- Low series resistance. (r_s = 0.5Ω max)
- Super small Flat Lead Package (SFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Renesas Code	Previous Code
HVD369B	D	PUSF0002ZB-A	SFP

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	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 =15 V
	I_{R2}	—	—	100		V_R = 15 V, Ta = 60°C
Capacitance	C_1	4.65	—	5.15	pF	V_R = 1 V, f = 1 MHz
	C_4	1.85	—	2.15		V_R = 4 V, f = 1 MHz
Capacitance ratio	n	2.3	—	—	—	C_1 / C_4
Series resistance	r_S	—	—	0.5	Ω	V_R = 1 V, f = 470 MHz

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

Main Characteristic

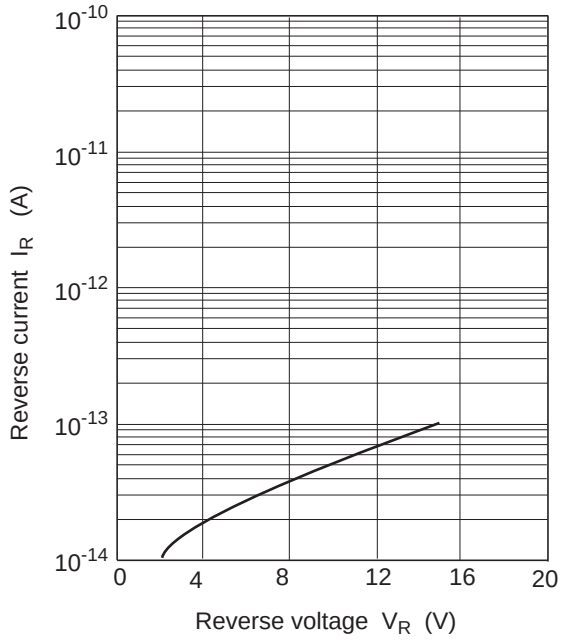


Fig.1 Reverse current vs. Reverse voltage

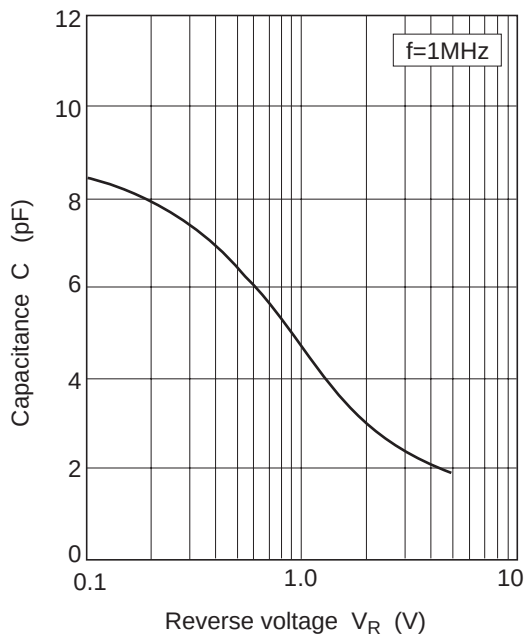


Fig.2 Capacitance vs. Reverse voltage

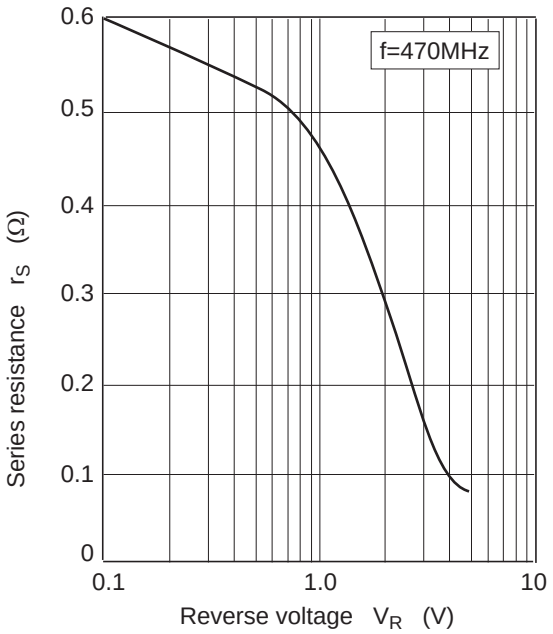


Fig.3 Series resistance vs. Reverse voltage

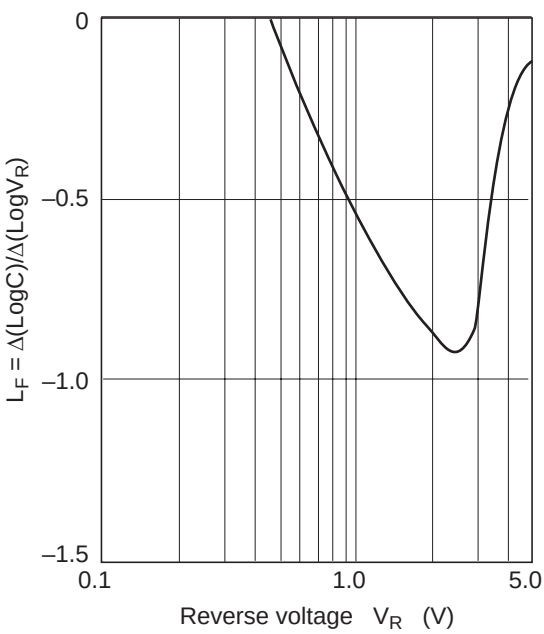
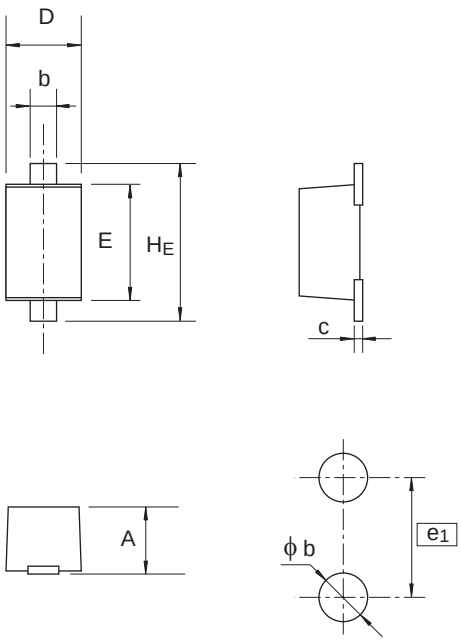


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
—	PUSF0002ZB-A	SFP / SFPV	0.0010g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.50	—	0.55
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.55	0.60	0.65
E	0.90	1.00	1.10
H_E	1.30	1.40	1.50
ϕ b	—	0.50	—
e_1	—	1.40	—

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http://www.renesas.com

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Colophon 2.0