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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HVB350BYP

Variable Capacitance Diode for VCO



ADE-208-1420 (Z)

Rev. 0
May 2001

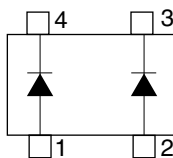
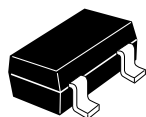
Features

- High capacitance ratio. ($n = 2.8$ min)
- Low series resistance. ($r_s = 0.5$ max)
- Good C-V linearity.
- CMPAK-4 Package is suitable for high density surface mounting and high speed assembly.

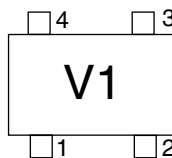
Ordering Information

Type No.	Laser Mark	Package Code
HVB350BYP	V1	CMPAK-4

Pin Arrangement



(Top View)



(Top View)

1. Anode
2. Anode
3. Cathode
4. Cathode

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 *1

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 15\text{ V}$
	I_{R2}	—	—	100		$V_R = 15\text{ V}$, $T_a = 60^\circ\text{C}$
Capacitance	C_1	15.5	—	17.0	pF	$V_R = 1\text{ V}$, $f = 1\text{ MHz}$
	C_4	5.0	—	6.0		$V_R = 4\text{ V}$, $f = 1\text{ MHz}$
Capacitance ratio	n	2.8	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	0.5	Ω	$V_R = 1\text{ V}$, $f = 470\text{ MHz}$

Note: 1. Per one device.

Main Characteristic

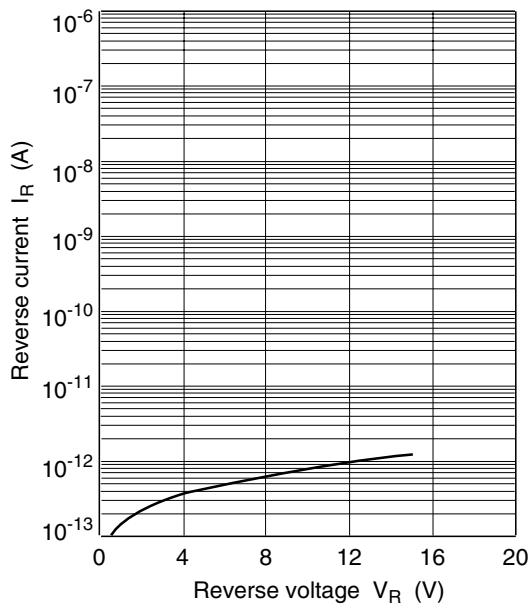


Fig.1 Reverse current vs. Reverse voltage

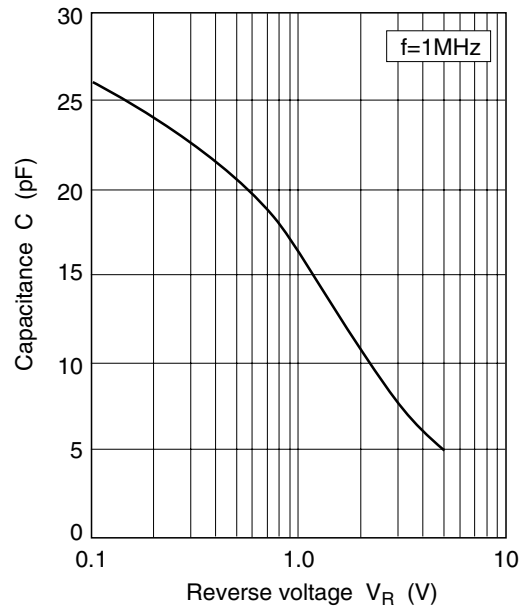


Fig.2 Capacitance vs. Reverse voltage

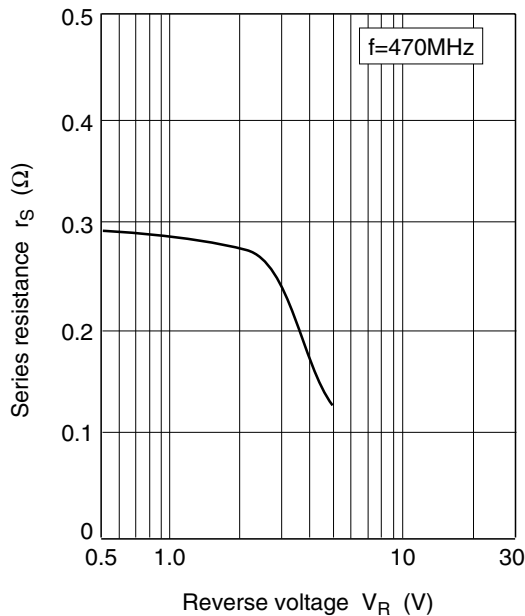


Fig.3 Series resistance vs. Reverse voltage

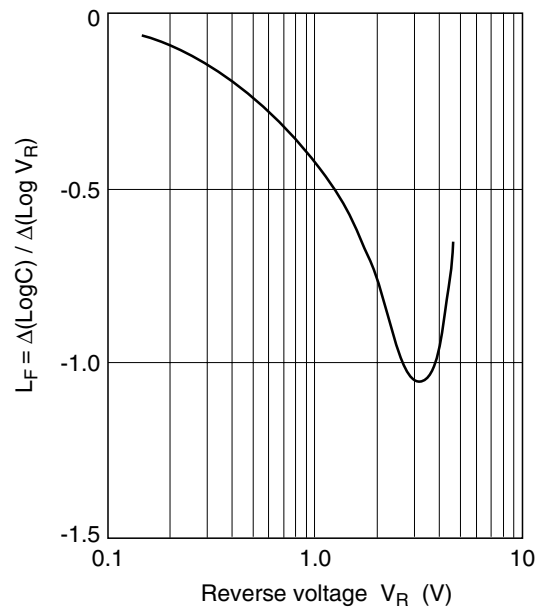


Fig.4 L_F vs. Reverse voltage

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