

# HVB350BYP

## Silicon Epitaxial Planar Variable Capacitance Diode for VCO

REJ03G0487-0100  
(Previous: ADE-208-1420)  
Rev.1.00  
Jan 11, 2005

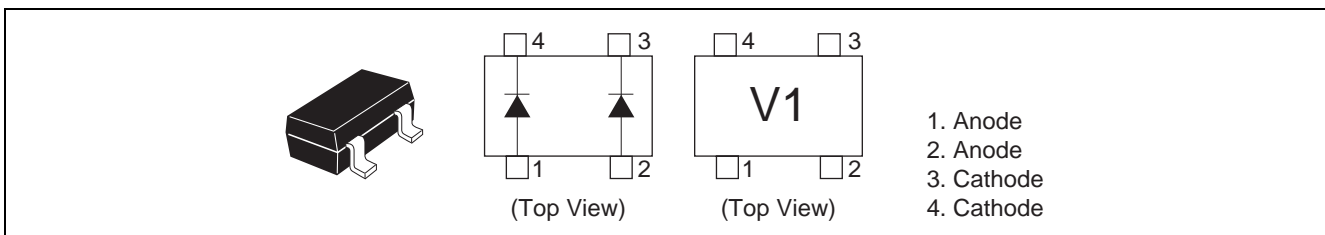
### Features

- 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



## 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	$V_R = 15\text{ V}$
	$I_{R2}$	—	—	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	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: 1. Per one device.

Main Characteristic

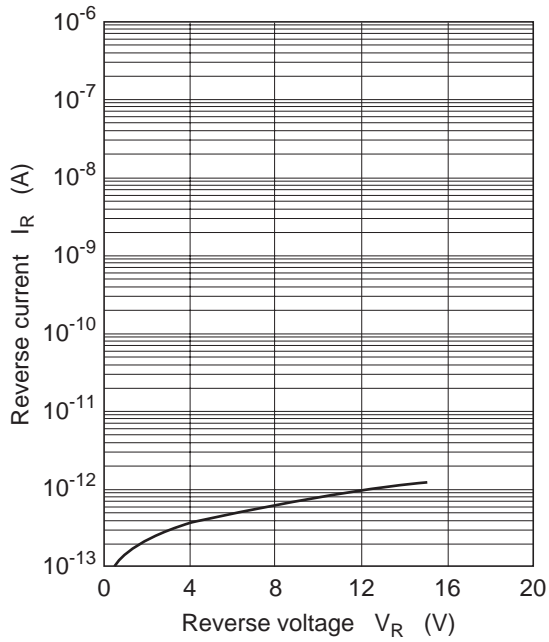


Fig.1 Reverse current vs. Reverse voltage

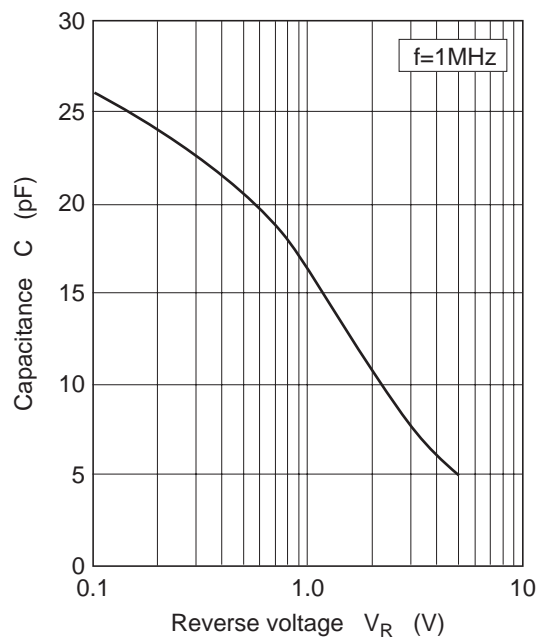


Fig.2 Capacitance vs. Reverse voltage

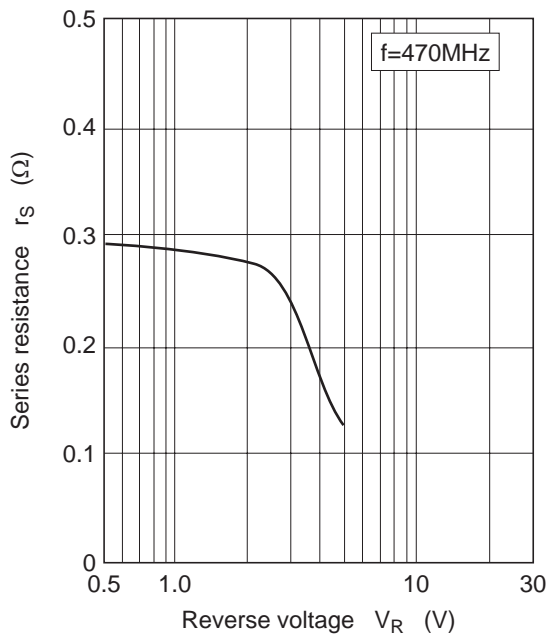


Fig.3 Series resistance vs. Reverse voltage

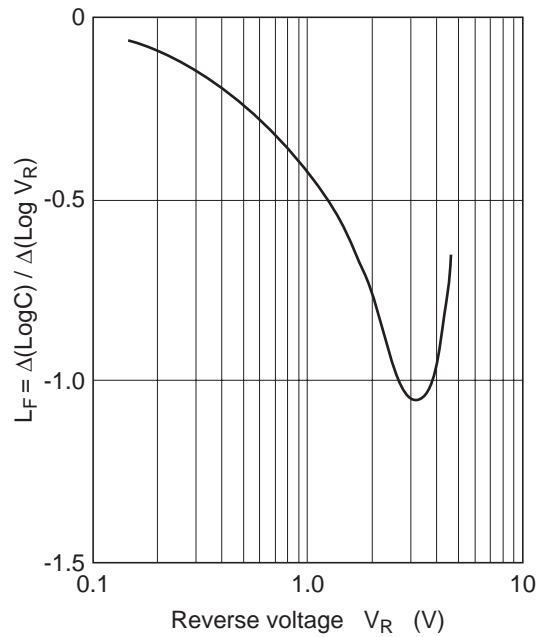
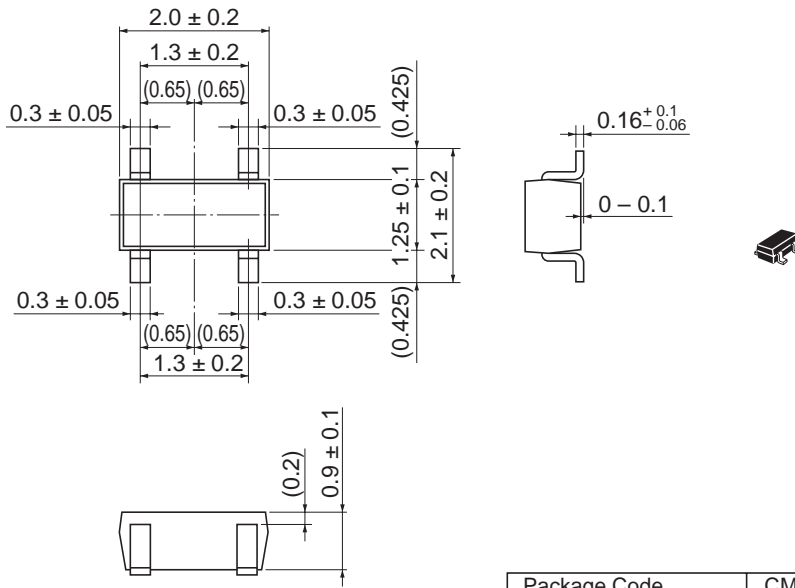


Fig.4  $L_F$  vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



Package Code	CMPAK-4
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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