

# HVB387BWK

## Variable Capacitance Diode for VCO

REJ03G0488-0200  
(Previous: ADE-208-1174A)  
Rev.2.00  
Jan 12, 2005

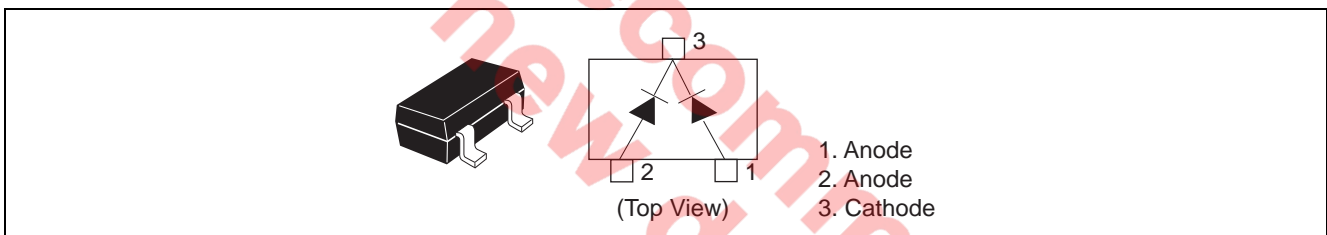
### Features

- Low capacitance and to be usable at GHz.
- High capacitance ratio. ( $n = 1.80$  min)
- Low series resistance. ( $r_s = 1.20 \Omega$  max)
- CML Package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVB387BWK	V5	CMLPAK

### Pin Arrangement



**Absolute Maximum Ratings** \*1

(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

Note: 1. Per one device.

**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	$C_1$	4.50	—	5.00	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	$C_3$	1.85	—	2.80		$V_R = 3\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	1.80	—	2.60	—	$C_1 / C_3$
Series resistance	$r_s$	—	—	1.20	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: 1. Per one device.

Not recommend  
for new design

Main Characteristic

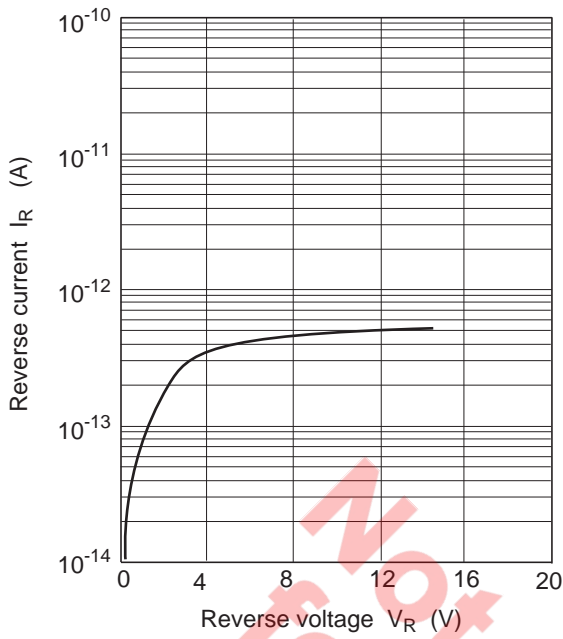


Fig.1 Reverse current vs. Reverse voltage

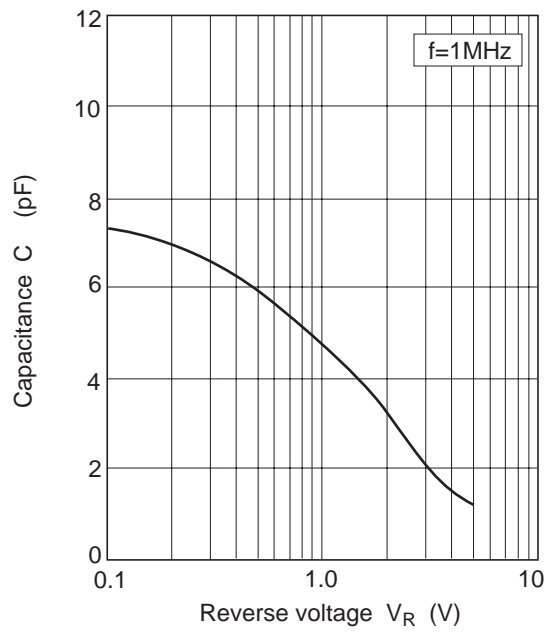


Fig.2 Capacitance vs. Reverse voltage

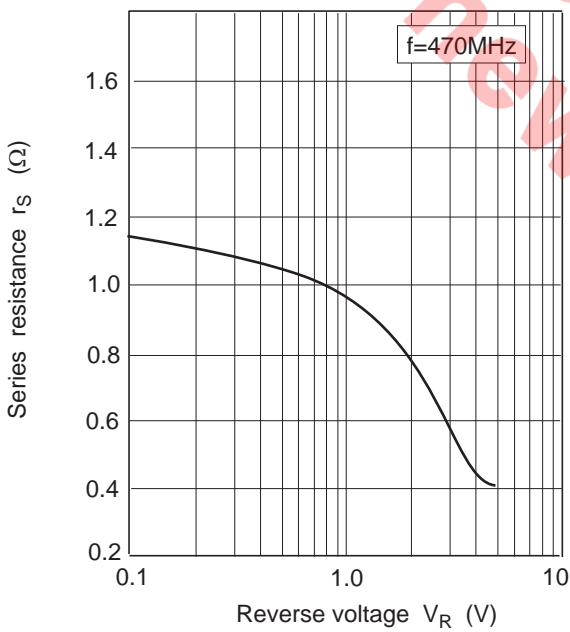


Fig.3 Series resistance vs. Reverse voltage

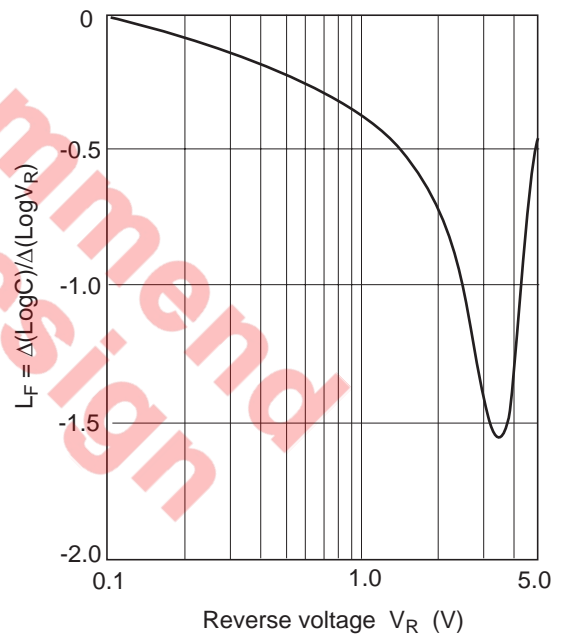
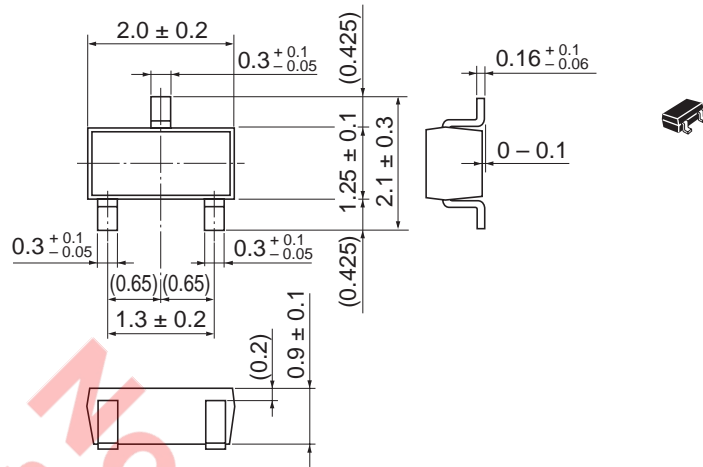


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



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

Not recommend  
for new design

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