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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HVB387BWK

Variable Capacitance Diode for VCO

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

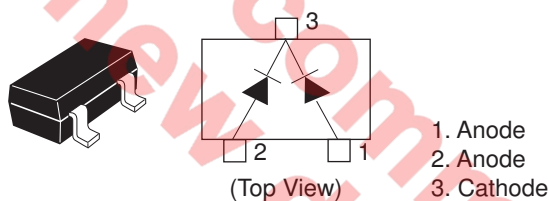
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HVB387BWK	V5	CMPAK

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 V
	I _{R2}	—	—	100		V _R = 15 V, Ta = 60°C
Capacitance	C ₁	4.50	—	5.00	pF	V _R = 1 V, f = 1 MHz
	C ₃	1.85	—	2.80		V _R = 3 V, f = 1 MHz
Capacitance ratio	n	1.80	—	2.60	—	C ₁ / C ₃
Series resistance	r _s	—	—	1.20	Ω	V _R = 1 V, f = 470 MHz

Note: 1. Per one device.

Main Characteristic

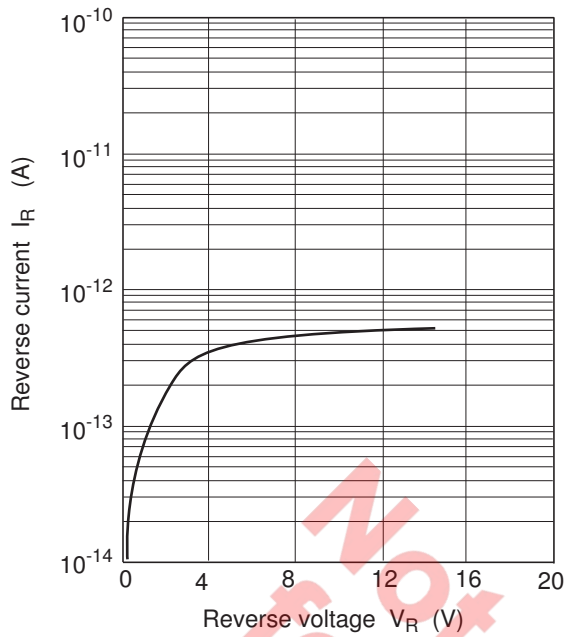


Fig.1 Reverse current vs. Reverse voltage

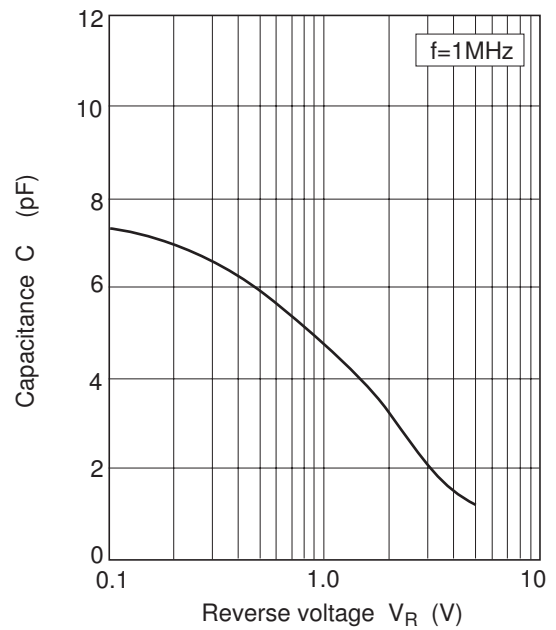


Fig.2 Capacitance vs. Reverse voltage

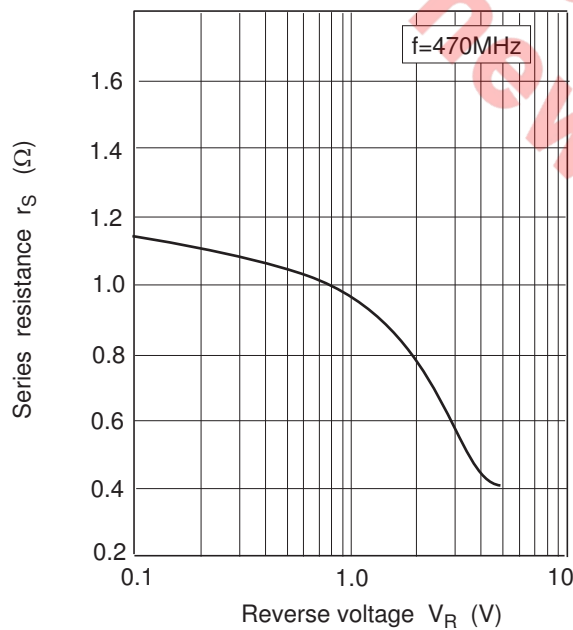


Fig.3 Series resistance vs. Reverse voltage

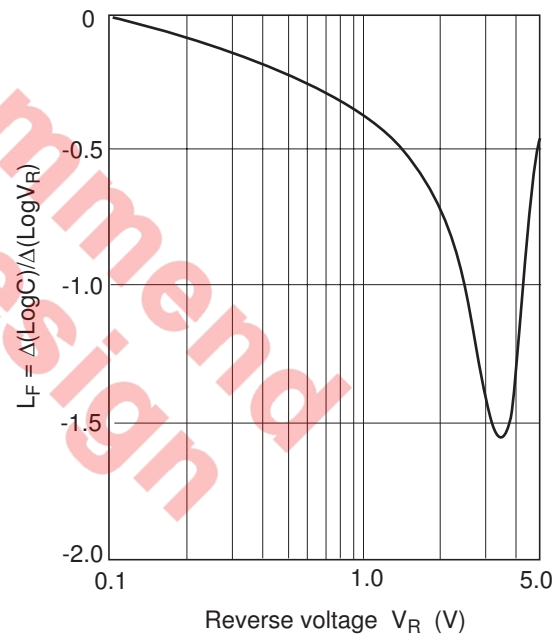
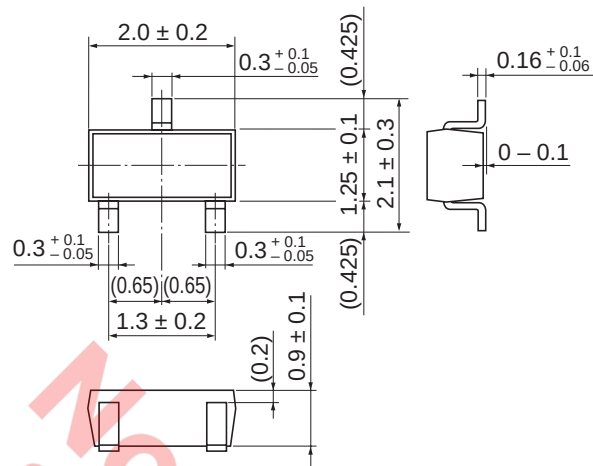


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003
Unit: mm



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

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