

## HVL396C

### Variable Capacitance Diode for VCO

REJ03G0024-0200Z

Rev.2.00

Jun 07, 2004

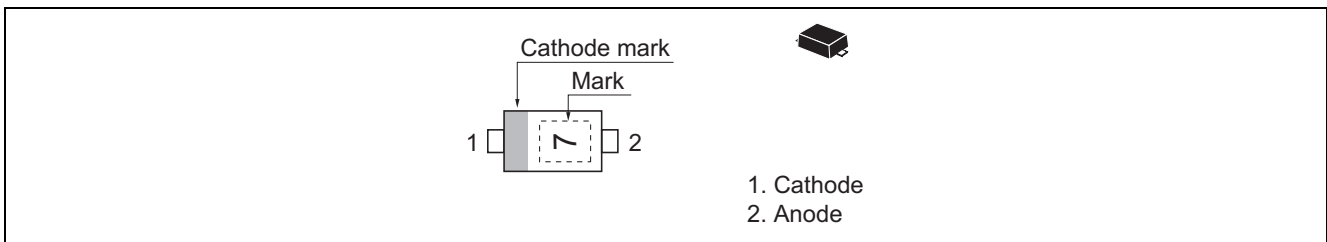
#### Features

- High capacitance ratio. ( $n = 2.62$  min)
- Low series resistance. ( $r_s = 0.40 \Omega$  max)
- Extremely small Flat Package (EFP) is suitable for surface mount design.

#### Ordering Information

Type No.	Laser Mark	Package Code
HVL396C	7	EFP

#### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	10	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	$V_R = 10\text{ V}$
	$I_{R2}$	—	—	50		$V_R = 10\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	$C_1$	14.6	—	15.8	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	$C_4$	5.20	—	5.80		$V_R = 4\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	2.62	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	0.40	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Notes: 1. Please do not use the soldering iron due to avoid high stress to the EFP package.

2. The material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic

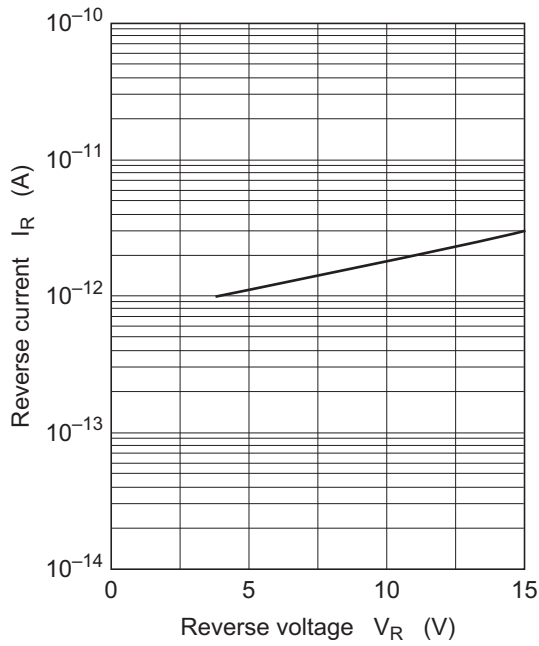


Fig.1 Reverse current vs. Reverse voltage

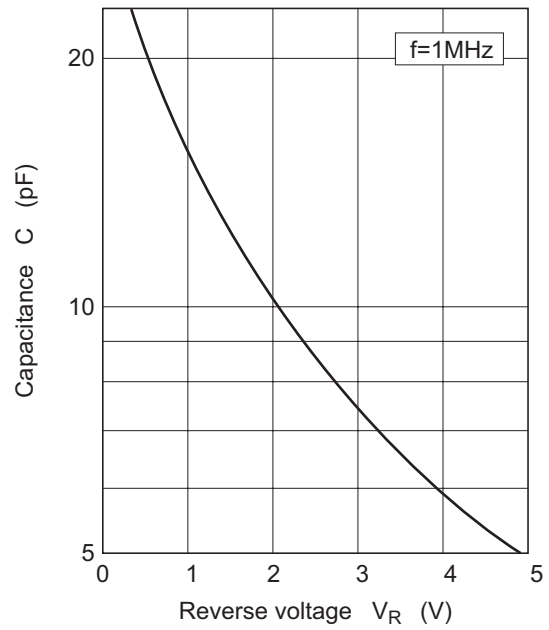


Fig.2 Capacitance vs. Reverse voltage

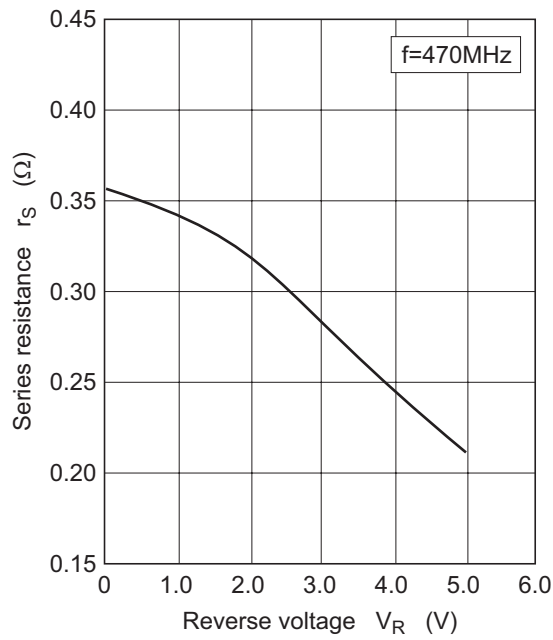


Fig.3 Series resistance vs. Reverse voltage

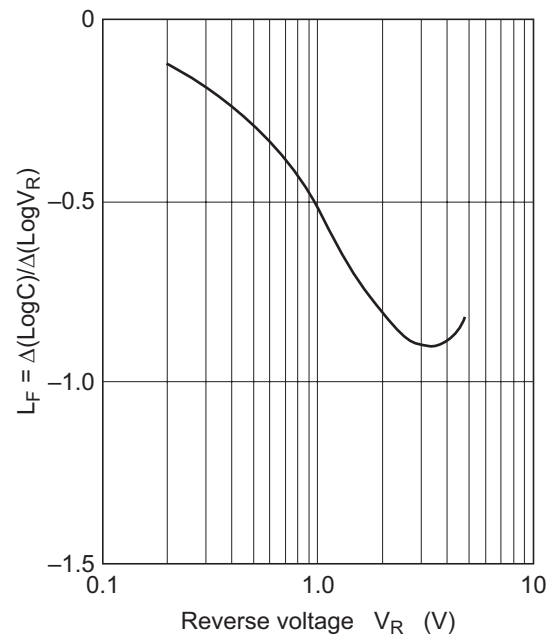
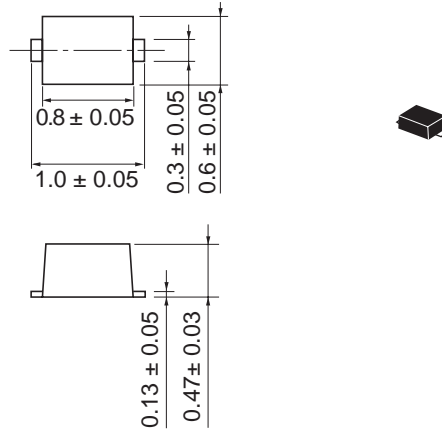


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



Package Code	EFP
JEDEC	—
JEITA	—
Mass (reference value)	0.0007 g

**Renesas Technology Corp.** Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

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26/F., Ruijin Building, No.205 Maoming Road (S), Shanghai 200020, China  
Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

**Renesas Technology Singapore Pte. Ltd.**

1, Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632  
Tel: <65> 6213-0200, Fax: <65> 6278-8001

