

HVC359

Variable Capacitance Diode for VCO

REJ03G0489-0300
 (Previous: ADE-208-419B)
 Rev.3.00
 Jan 17, 2005

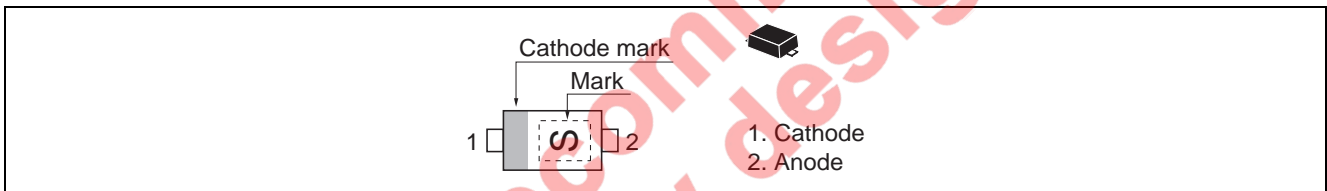
Features

- High capacitance ratio and good C-V linearity.
- To be usable at low voltage.
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC359	S	UFP

Pin Arrangement



Not recommended for new design

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 = 10 V
	I _{R2}	—	—	100		V _R = 10 V, Ta = 60°C
Capacitance	C ₁	24.8	—	29.8	pF	V _R = 1 V, f = 1 MHz
	C ₄	6.0	—	8.30		V _R = 4 V, f = 1 MHz
Capacitance ratio	n	3.00	—	—	—	C ₁ /C ₄
Series resistance	r _s	—	—	1.50	Ω	V _R = 4 V, f = 100 MHz
ESD-Capability *1	—	200	—	—	V	C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 pulse.

Note: 1. Failure criterion ; I_R ≥ 20 nA at V_R = 10 V

Not recommended for new designs

Main Characteristic

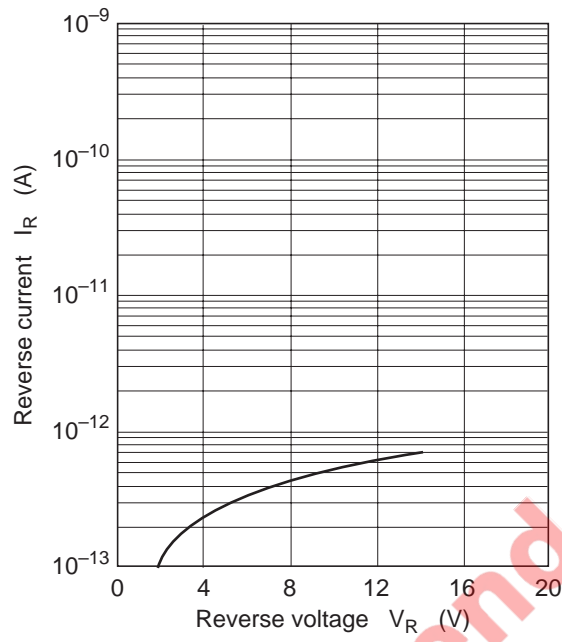


Fig.1 Reverse Current vs. Reverse Voltage

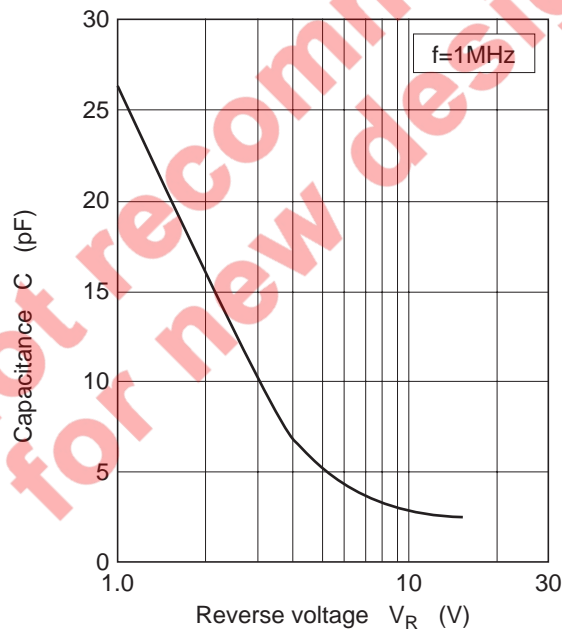
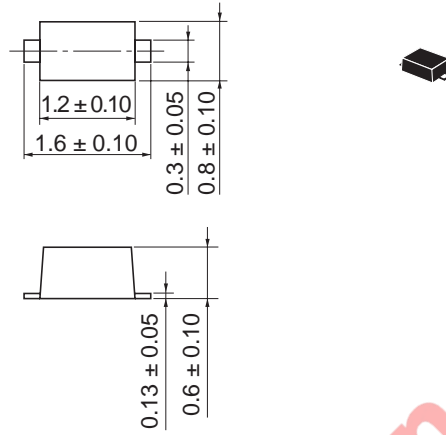


Fig.2 Capacitance vs. Reverse Voltage

Package Dimensions

As of January, 2003
Unit: mm



Package Code	UFP
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.0016 g

Not recommended
for new designs

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Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China
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Renesas Technology Singapore Pte. Ltd.
1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

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April 1st, 2010
Renesas Electronics Corporation

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