To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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Keep safety first in your circuit designs!

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HVC359

Variable Capacitance Diode for VCO

ADE-208-419B (Z)

Rev.2
Apr. 2002

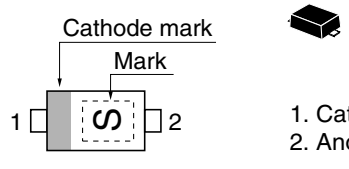
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HVC359	S	UFP

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–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	—	8.3		V_R = 4 V, f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	C_1/C_4
Series resistance	r_s	—	—	1.5	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 ; $I_R \geq 20$ nA at V_R =10 V

Main Characteristic

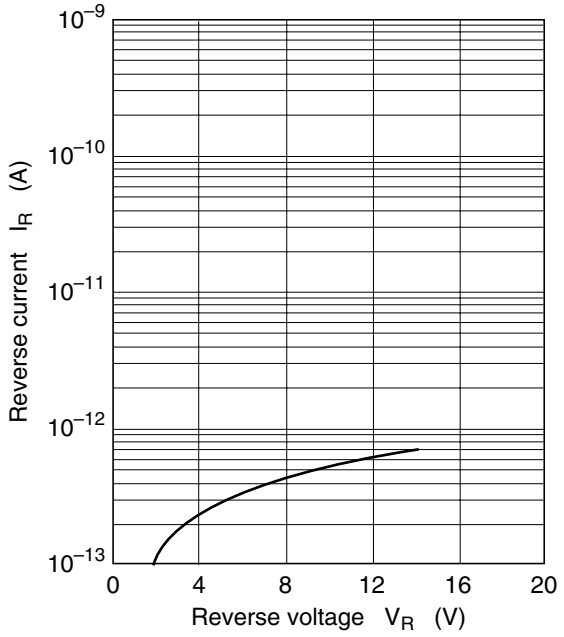


Fig.1 Reverse Current vs. Reverse Voltage

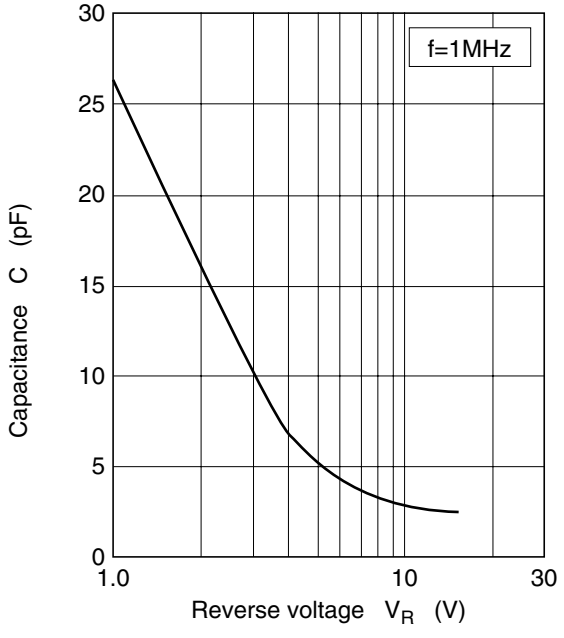
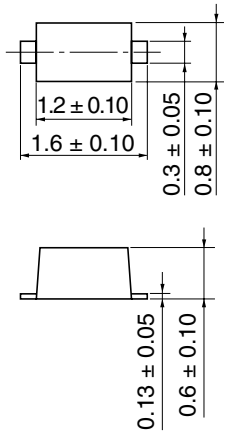


Fig.2 Capacitance vs. Reverse Voltage

Package Dimensions

As of January, 2002
Unit: mm



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

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