

# HVC359

Variable Capacitance Diode for VCXO

# HITACHI

ADE-208-419A(Z)

Rev 0

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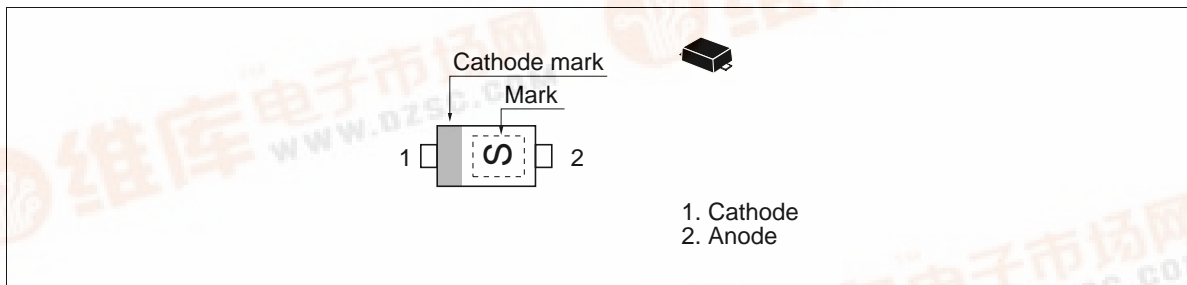
## Features

- 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

## Outline



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## HVC359

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### 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	$V_R = 10V$
	$I_{R2}$	—	—	100		$V_R = 10V, T_a = 60^\circ C$
Capacitance	$C_1$	24.8	—	29.8	pF	$V_R = 1V, f = 1\text{ MHz}$
	$C_4$	6.0	—	8.3		$V_R = 4V, f = 1\text{ MHz}$
Capacitance ratio	n	3.0	—	—	—	$C_1/C_4$
Series resistance	$r_s$	—	—	1.5	$\Omega$	$V_R = 4V, f = 100\text{ MHz}$
ESD-Capability <sup>1</sup>	$\Delta V$	80	—	—	V	C=200pF , Both forward and reverse direction 1 pulse.

Notes 1. Failure criterion ;  $I_R \geq 20nA$  at  $V_R = 10\text{ V}$

Main Characteristic

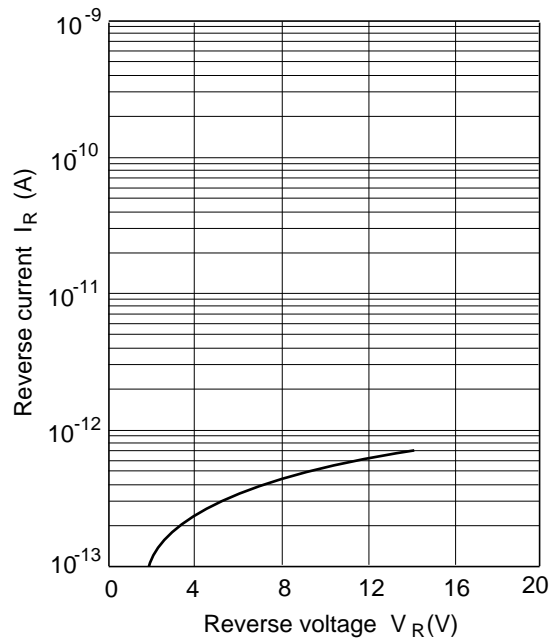


Fig.1 Reverse current Vs. Reverse voltage

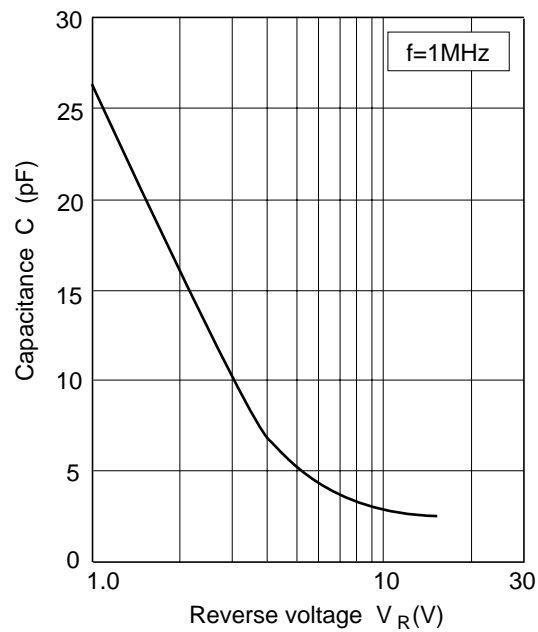


Fig.2 Capacitance Vs. Reverse voltage

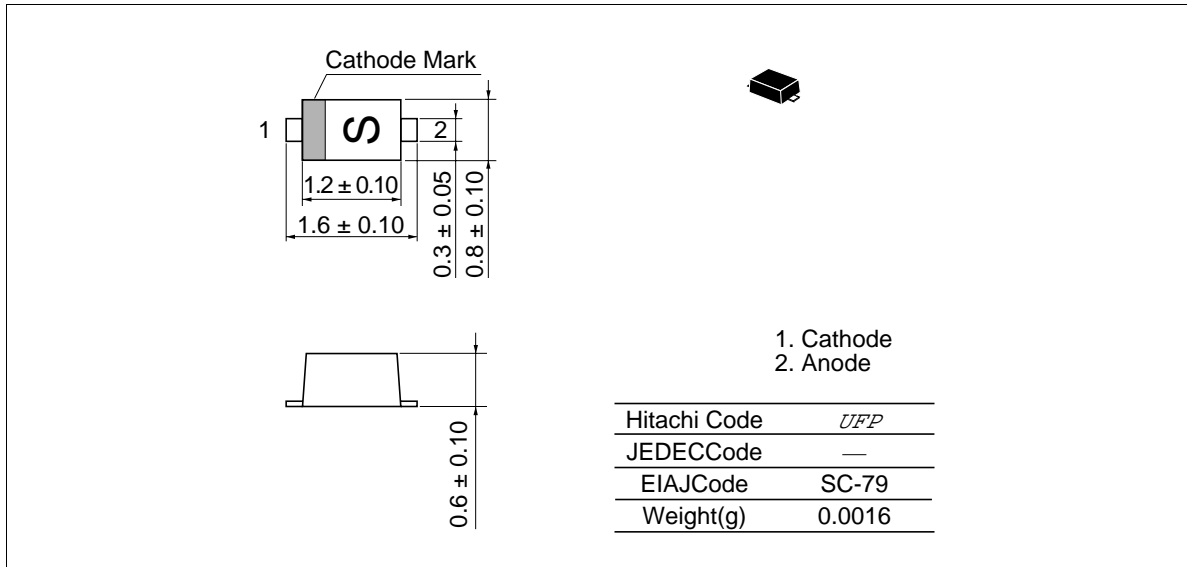
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# HVC359

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## Package Dimensions

Unit : mm



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# HITACHI

## Hitachi, Ltd.

Semiconductor & Integrated Circuits.  
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan  
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL     NorthAmerica     : <http://semiconductor.hitachi.com/>  
          Europe            : <http://www.hitachi-eu.com/hel/ecg>  
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### For further information write to:

Hitachi Semiconductor  
(America) Inc.  
179 East Tasman Drive,  
San Jose, CA 95134  
Tel: <1> (408) 433-1990  
Fax: <1> (408) 433-0223

Hitachi Europe GmbH  
Electronic components Group  
Dornacher StraÙe 3  
D-85622 Feldkirchen, Munich  
Germany  
Tel: <49> (89) 9 9180-0  
Fax: <49> (89) 9 29 30 00  
  
Hitachi Europe Ltd.  
Electronic Components Group.  
Whitebrook Park  
Lower Cookham Road  
Maidenhead  
Berkshire SL6 8YA, United Kingdom  
Tel: <44> (1628) 585000  
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.  
16 Collyer Quay #20-00  
Hitachi Tower  
Singapore 049318  
Tel: 535-2100  
Fax: 535-1533

Hitachi Asia Ltd.  
Taipei Branch Office  
3F, Hung Kuo Building, No.167,  
Tun-Hwa North Road, Taipei (105)  
Tel: <886> (2) 2718-3666  
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.  
Group III (Electronic Components)  
7/F., North Tower, World Finance Centre,  
Harbour City, Canton Road, Tsim Sha Tsui,  
Kowloon, Hong Kong  
Tel: <852> (2) 735 9218  
Fax: <852> (2) 730 0281  
Telex: 40815 HITEC HX