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# HVD359

Variable Capacitance Diode for VCXO

# HITACHI

ADE-208-955 (Z)

Rev. 0  
Jul. 2000

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## Features

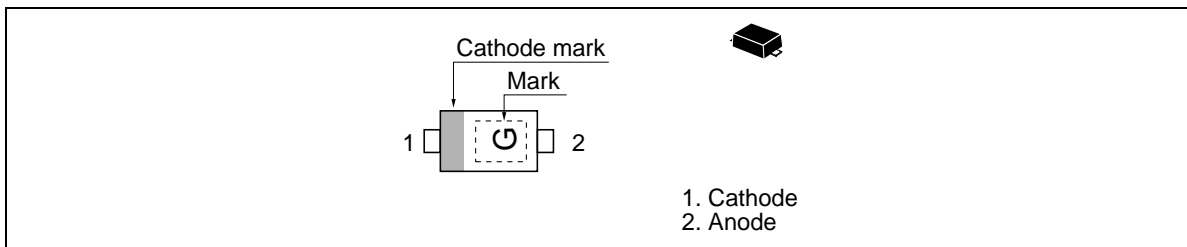
- High capacitance ratio and good C-V linearity.
- To be usable at low voltage.
- Super small Flat Package (SFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HVD359	G	SFP

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## Outline



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## HVD359

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### 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	$V_R = 10\text{ V}$
	$I_{R2}$	—	—	100		$V_R = 10\text{ V}$ , Ta = 60°C
Capacitance	$C_1$	24.8	—	29.8	pF	$V_R = 1\text{ V}$ , f = 1 MHz
	$C_4$	6.0	—	8.3		$V_R = 4\text{ V}$ , f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	$C_1/C_4$
Series resistance	$r_s$	—	—	1.5	Ω	$V_R = 4\text{ V}$ , f = 100 MHz
ESD-Capability *1	—	80	—	—	V	C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 pulse.

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

2. Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

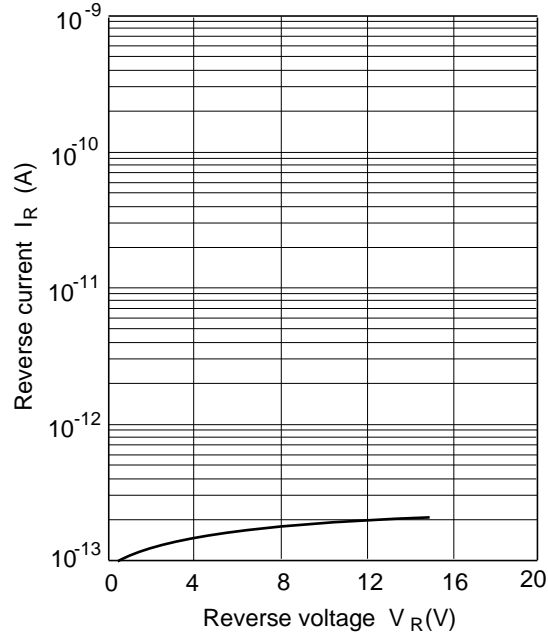


Fig.1 Reverse current Vs. Reverse voltage

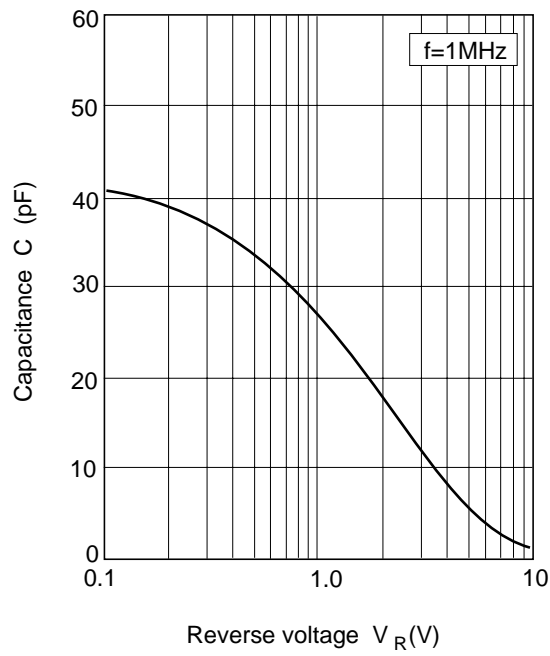
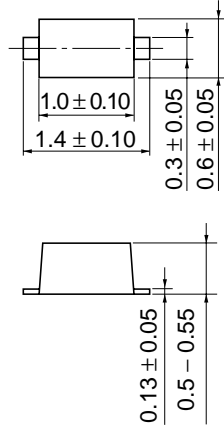


Fig.2 Capacitance Vs. Reverse voltage

# HVD359

## Package Dimensions

Unit: mm



Hitachi Code	SFP
JEDEC	—
EIAJ	—
Mass (reference value)	0.0010 g

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