

# HVU359

Variable Capacitance Diode for VCXO

# HITACHI

ADE-208-023C(Z)

Rev 3

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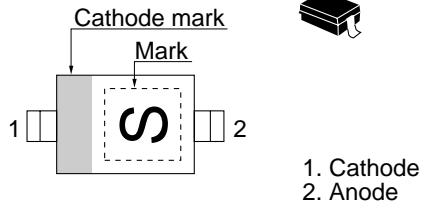
## Features

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

## Ordering Information

Type No.	Laser Mark	Package Code
HVU359	S	URP

## Outline



**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		$V_R = 10V, T_a = 60\text{ °C}$
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>	—	80	—	—	V	C=200pF , Both forward and reverse direction 1 pulse.

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

Main Characteristic

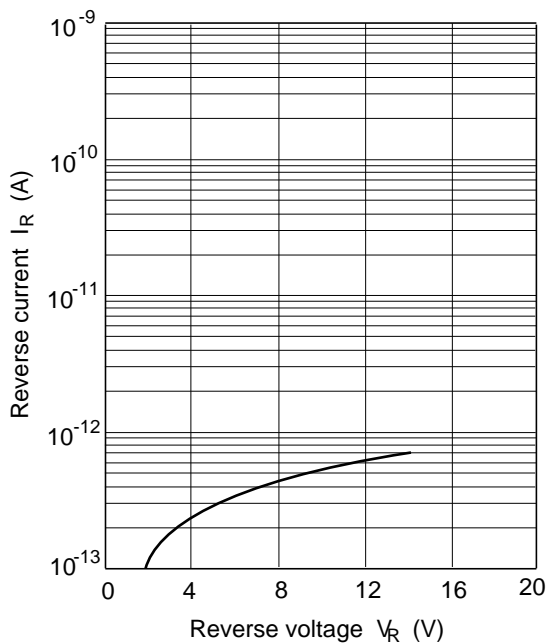


Fig.1 Reverse current Vs. Reverse voltage

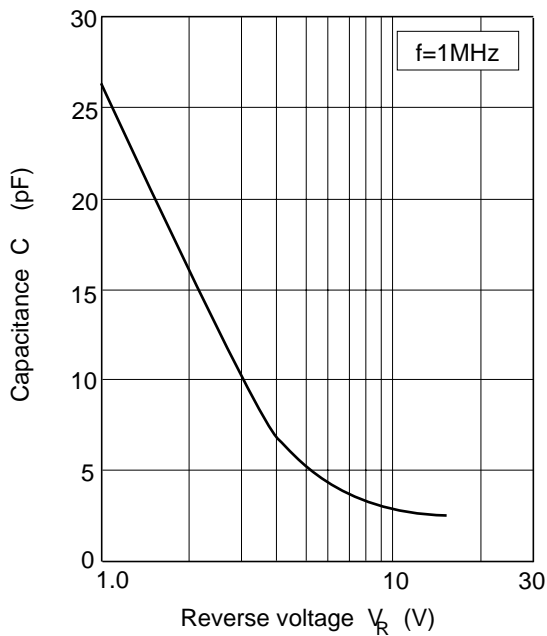
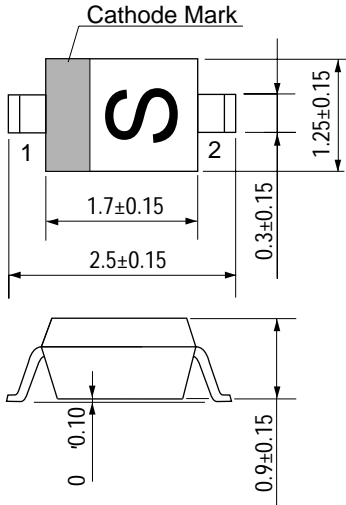


Fig.2 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit : mm



- 1. Cathode
- 2. Anode

Hitachi Code	URP
JEDECCode	—
EIAJCode	—
Weight(g)	0.004

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