

# HVU359

## Variable Capacitance Diode for VCO

REJ03G0507-0500  
(Previous: ADE-208-023D)  
Rev.5.00  
Jan 28, 2005

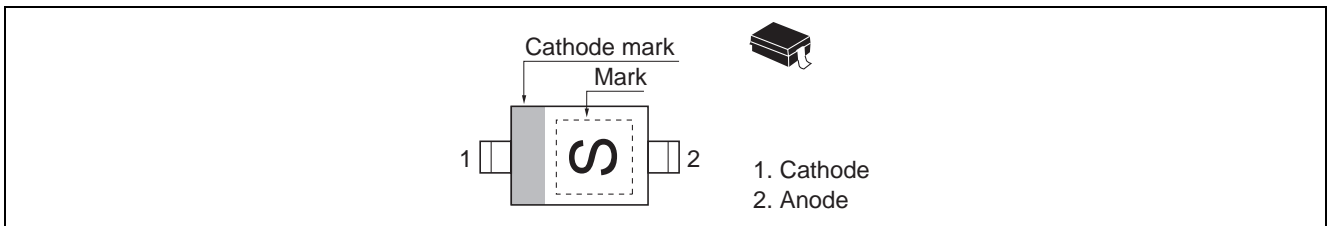
### Features

- 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	Renesas Code	Previous Code
HVU359	S	PTSP0002ZA-A	URP

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	15	V
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

## Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I <sub>R1</sub>	—	—	10	nA	V <sub>R</sub> = 10 V
	I <sub>R2</sub>	—	—	100		V <sub>R</sub> = 10 V, Ta = 60°C
Capacitance	C <sub>1</sub>	24.8	—	29.8	pF	V <sub>R</sub> = 1 V, f = 1 MHz
	C <sub>4</sub>	6.0	—	8.3		V <sub>R</sub> = 4 V, f = 1 MHz
Capacitance ratio	n	3.0	—	—	—	C <sub>1</sub> /C <sub>4</sub>
Series resistance	r <sub>s</sub>	—	—	1.5	Ω	V <sub>R</sub> = 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<sub>R</sub> ≥ 20 nA at V<sub>R</sub> = 10 V

### Main Characteristic

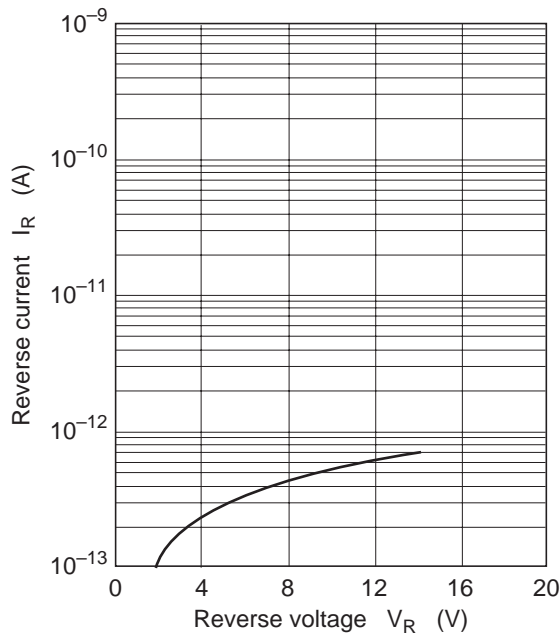


Fig.1 Reverse Current vs. Reverse Voltage

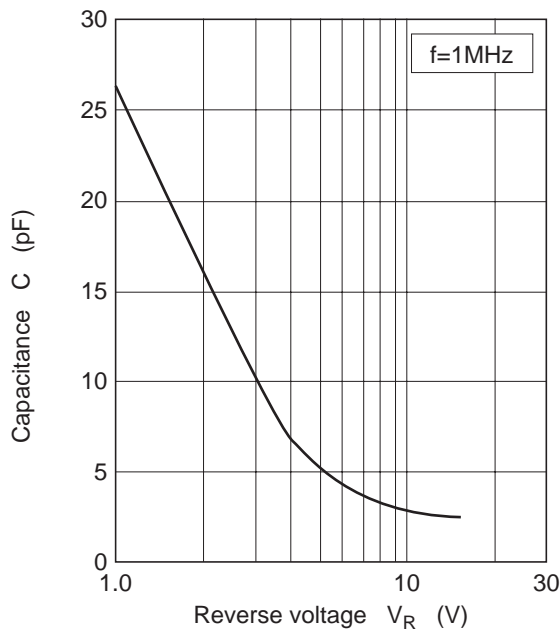
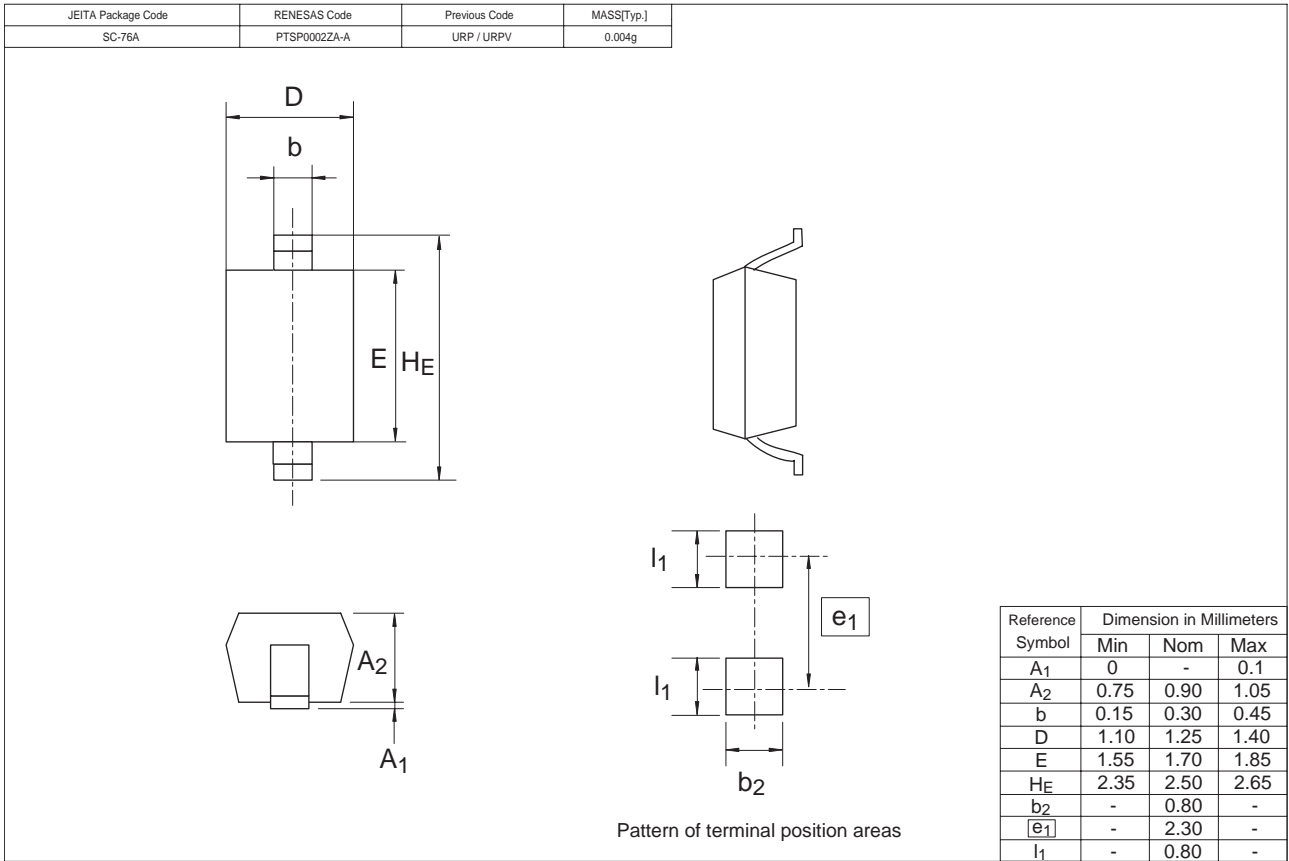


Fig.2 Capacitance vs. Reverse Voltage

Package Dimensions



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