

# HVU350

## Variable Capacitance Diode for VCO

# HITACHI

Preliminary  
Rev. 3  
May. 1993

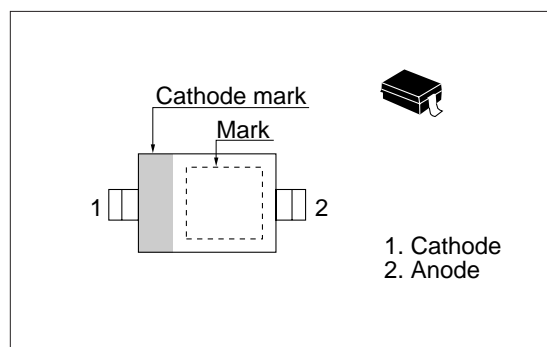
### Features

- Low series resistance. ( $r_s=0.50\Omega$  max)
- Ultra small Resin Package (URP) is suitable for surface mount design.

### Ordering Information

Type No.	Laser Mark	Package Code
HVU350	4	URP

### Outline

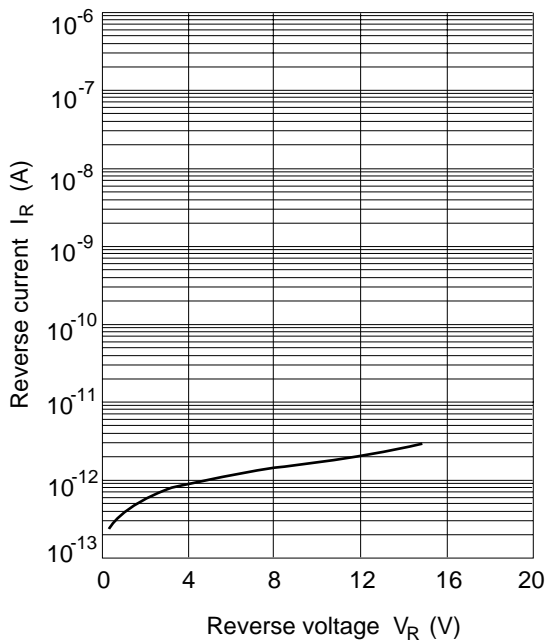


### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

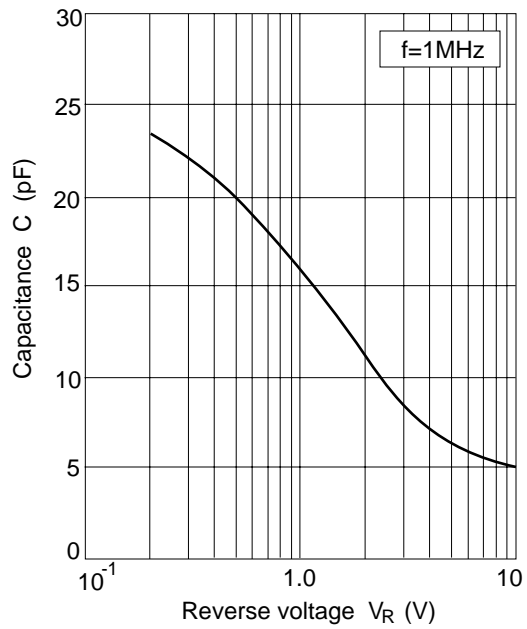
Item	Symbol	Value	Unit
Reverse voltage	$V_R$	15	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +125	$^\circ\text{C}$

### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

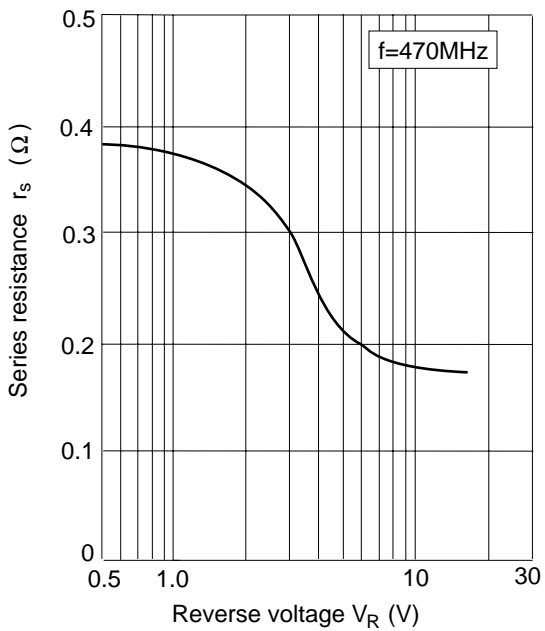
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_{R1}$	—	—	10	nA	$V_R = 15\text{ V}$
	$I_{R2}$	—	—	100		$V_R = 15\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	$C_1$	15.0	—	17.5	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	$C_4$	5.3	—	6.3		$V_R = 4\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	2.80	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	0.50	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$



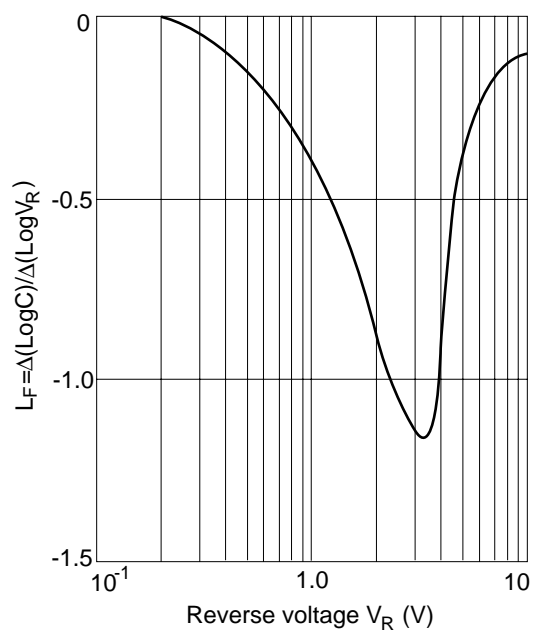
**Fig.1 Reverse current Vs. Reverse voltage**



**Fig.2 Capacitance Vs. Reverse voltage**



**Fig.3 Series resistance Vs. Reverse voltage**



**Fig.4 Linearity factor Vs. Reverse voltage**

Package Dimensions

Unit: mm

