

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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Not recommended  
for new design

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# HVU133

## Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G0436-0300  
 (Previous: ADE-208-377B)  
 Rev.3.00  
 Oct 29, 2004

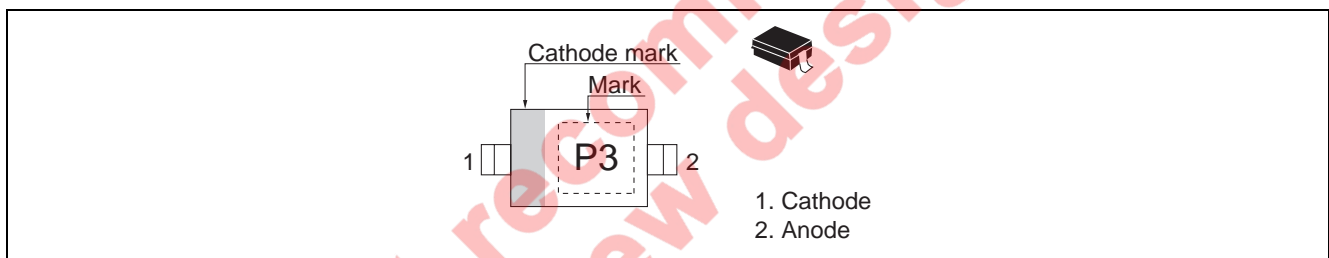
### Features

- Low capacitance. ( $C1 = 1.0 \text{ pF max}$ )
- Low forward resistance. ( $r_f = 0.7 \Omega \text{ max}$ )
- Ultra small Resin Package (URP) is suitable for surface mount design.

### Ordering Information

Type No.	Laser Mark	Package Code
HVU133	P3	URP

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
Power dissipation	$P_d$	150	mW
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 voltage	$V_R$	30	—	—	V	$I_R = 1\mu A$
Reverse current	$I_R$	—	—	100	nA	$V_R = 25 V$
Forward voltage	$V_F$	—	—	0.85	V	$I_F = 2 mA$
Capacitance	$C_1$	—	—	1.00	pF	$V_R = 1 V, f = 1 MHz$
	$C_6$	—	—	0.90		$V_R = 6 V, f = 1 MHz$
Forward resistance	$r_f$	—	0.55	0.70	$\Omega$	$I_F = 2 mA, f = 100 MHz$

Not recommended  
for new design

Main Characteristic

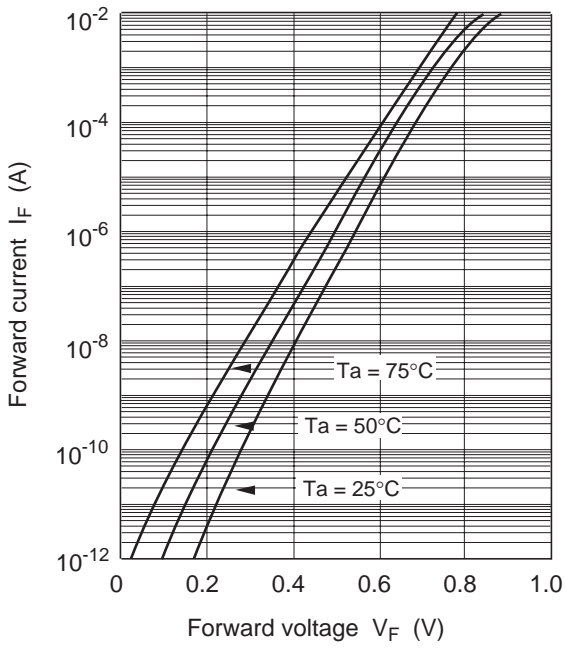


Fig.1 Forward current vs. Forward voltage

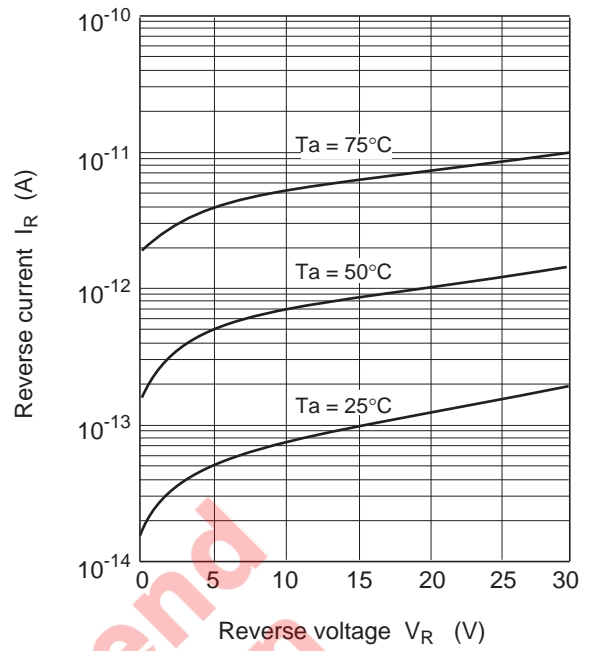


Fig.2 Reverse current vs. Reverse voltage

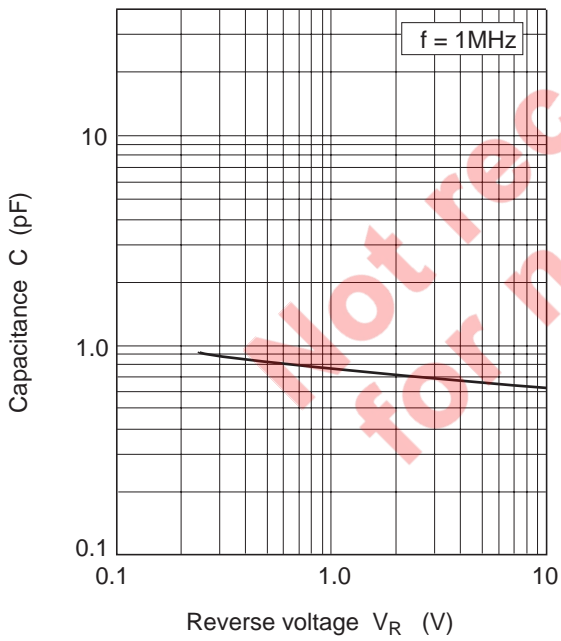


Fig.3 Capacitance vs. Reverse voltage

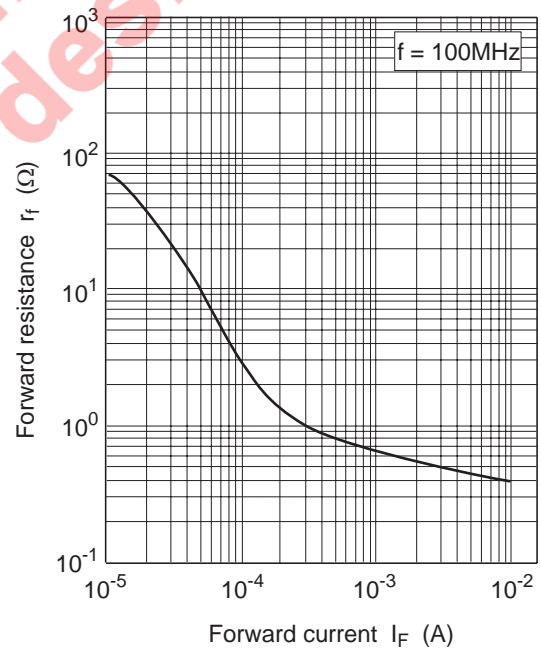


Fig.4 Forward resistance vs. Forward current

Package Dimensions

Technical drawing of the HVU133 package showing top and side views with dimensions:

- Top view width:  $1.7 \pm 0.15$
- Top view length:  $2.5 \pm 0.15$
- Side view height:  $0.3 \pm 0.15$
- Side view total height:  $1.25 \pm 0.15$
- Lead height:  $0 - 0.10$
- Lead width:  $0.9 \pm 0.15$

As of January, 2003  
Unit: mm

Package Code	URP
JEDEC	Conforms
JEITA	—
Mass (reference value)	0.004 g

Not recommend  
for new design

Keep safety first in your circuit designs!

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