

To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HVU17

Variable Capacitance Diode for VCO



ADE-208-021C(Z)

Rev. 3
Jun. 1996

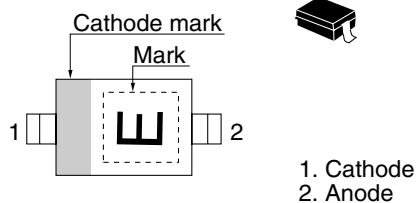
Features

- Good linearity of C-V curve.
- To be usable at low voltage.
- High figure of merit.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU17	E	URP

Pin Arrangement



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 voltage	V _R	15.0	—	∞	V	I _R = 10μA
Reverse current	I _R	—	—	100	nA	V _R = 9V
Capacitance	C ₁	50.0	—	85.0	pF	V _R = 1V, f = 1 MHz
	C ₃	16.1	—	27.3		V _R = 3V, f = 1 MHz
	C _{4.5}	5.23	—	8.84		V _R = 4.5V, f = 1 MHz
Capacitance ratio	n	5.60	—	—	—	C ₁ /C _{4.5}
Figure of merit	Q	50	—	—	—	V _R = 2.5V, f = 10 MHz
ESD-Capability ^{†1}	—	80	—	—	V	C = 200pF, Both forward and reverse direction 1 pulse.

Note: 1. Failure criterion ; I_R ≥ 100nA at V_R = 9 V

Main Characteristic

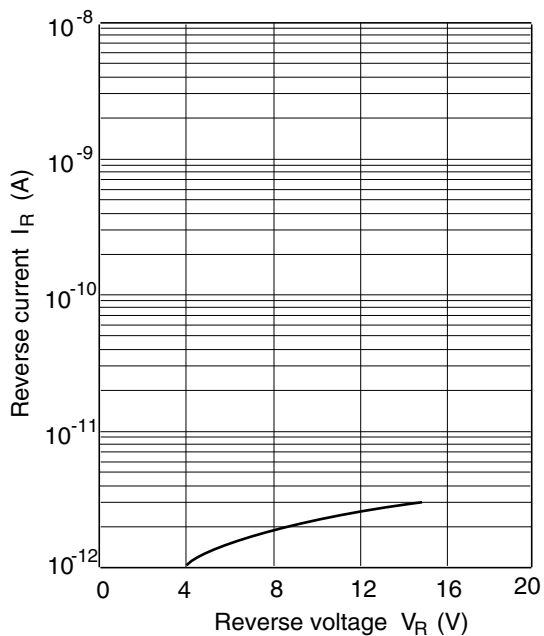


Fig.1 Reverse current Vs. Reverse voltage

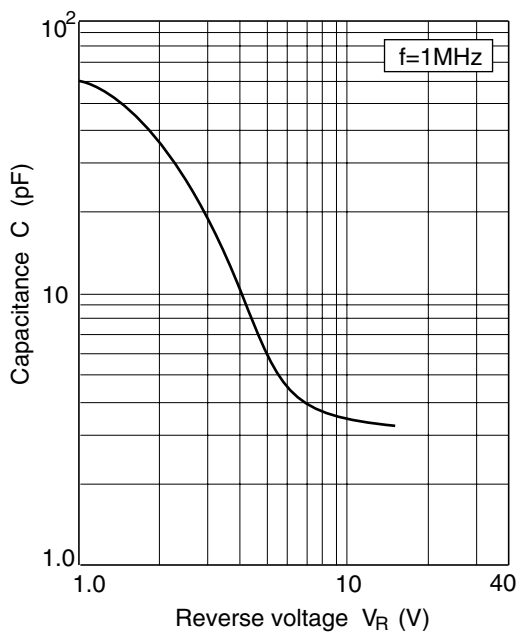
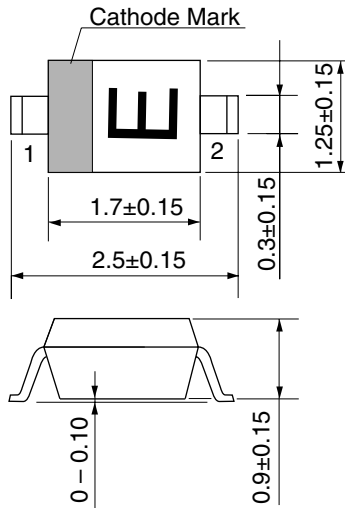


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



- 1. Cathode
- 2. Anode

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

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