HVU300A

Variable Capacitance Diode for Electronic Tuning

HITACHI

ADE-208-065D(Z)
Rev 4
June 1996

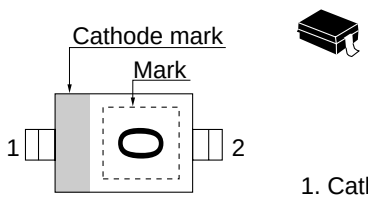
Features

- High capacitance ratio (n=14.5min) and suitable for wide band tuner.
- Low series resistance and good C-V linearity.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU300A	0	URP

Outline



1. Cathode
2. Anode

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	VR	32	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55Å`+125	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	IR1	Å\	Å\	10	nA	VR = 30V
	IR2	Å\	Å\	100		VR = 30V, Ta = 60 °C
Capacitance	C2	39.5	Å\	47.4	pF	VR = 2V, f = 1 MHz
	C25	2.60	Å\	3.03		VR = 25V, f = 1 MHz
Capacitance ratio	n	14.5	Å\	Å\	Å\	C2/ C25
Series resistance	rs	Å\	Å\	1.10	Ω	VR = 5V, f = 470 MHz
Matching error	ΔC/C*1	Å\	Å\	2.0	%	VR = 2~25V, f = 1 MHz

Note 1. C.C system (Continuous Connected taping system) enable to make any 10 pcs of ΔC/C continuous in a reel , expect extention to another group.
Calculate Matching Error,

$$\Delta C/C = \frac{(Cmax-Cmin)}{Cmin} \times 100\ (\%)$$

Main Characteristic

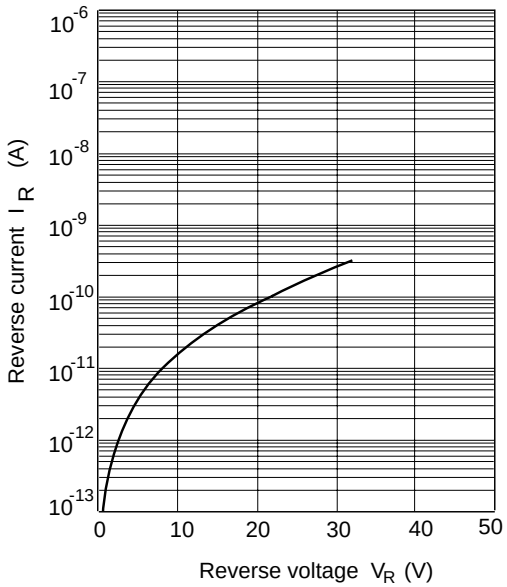

Fig.1 Reverse current Vs. Reverse voltage

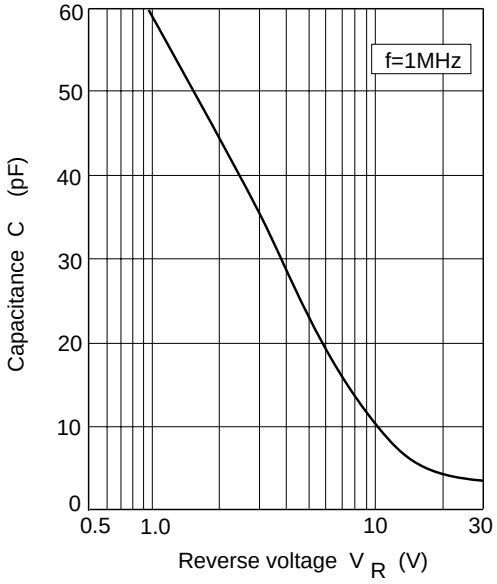

Fig.2 Capacitance Vs. Reverse voltage

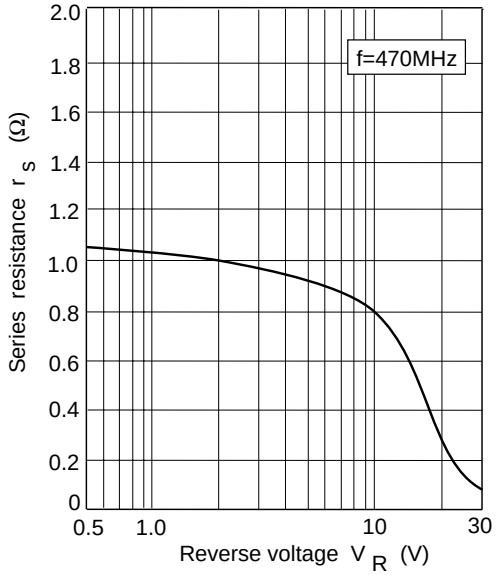

Fig.3 Series resistance Vs. Reverse voltage

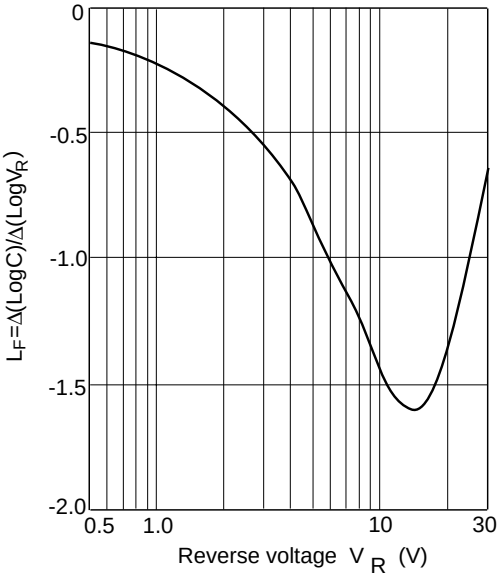

Fig.4 Linearity factor Vs. Reverse voltage

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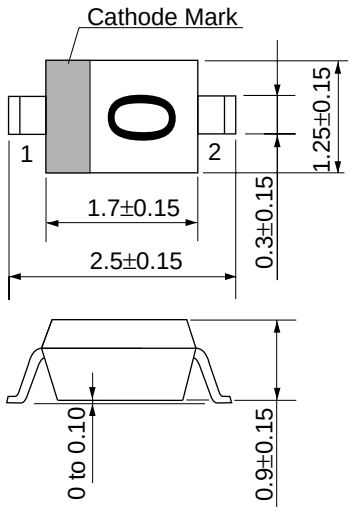
Package Dimensions

Unit : mm



1. Cathode
2. Anode

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