HVU12

Variable Capacitance Diode for Electronic Tuning

HITACHI

ADE-208-063C(Z)
Rev 3
June 1996

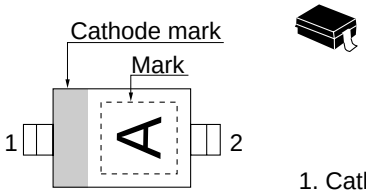
Features

- High capacitance ratio to wide tuning band width. (C1/C30=4.0min)
- Low series resistance. (rs=1.5Ωmax)
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU12	A	URP

Outline



1. Cathode
2. Anode

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	VR	35	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 voltage	VR	35	Å\	Å\	V	IR = 10μA
Reverse current	IR1	Å\	Å\	50	nA	VR = 30V
Capacitance	C1	3.60	Å\	5.60	pF	VR = 1V, f = 1 MHz
	C10	1.04	Å\	1.64		VR = 10V, f = 1 MHz
	C30	0.45	Å\	0.85		VR = 30V, f = 1 MHz
Capacitance ratio	n	4.0	Å\	Å\	Å\	C1/ C30
Series resistance	rs	Å\	Å\	1.5	Ω	VR = 2V, f = 100 MHz
Matching error	ΔC/C*1	Å\	Å\	6.0	%	VR = 1~30V, 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

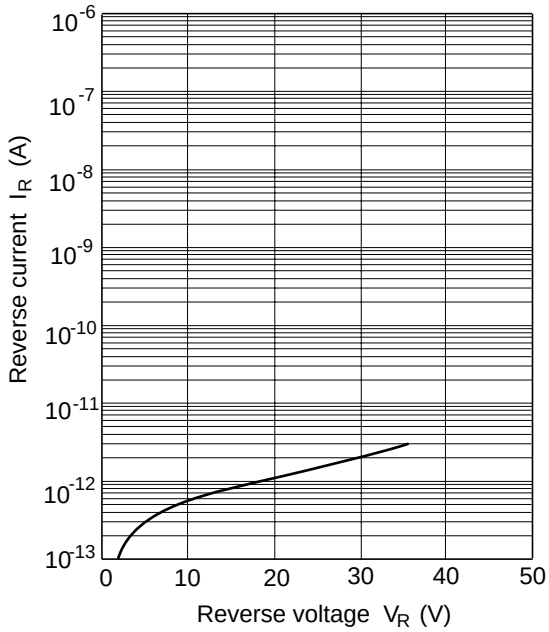

Fig.1 Reverse current Vs. Reverse voltage

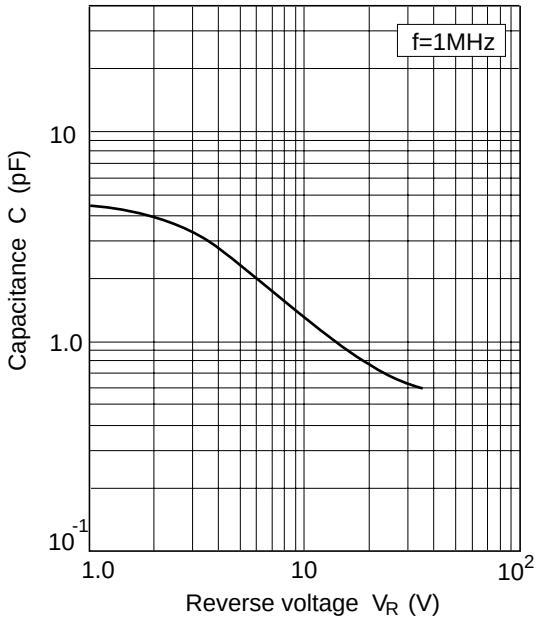

Fig.2 Capacitance Vs. Reverse voltage

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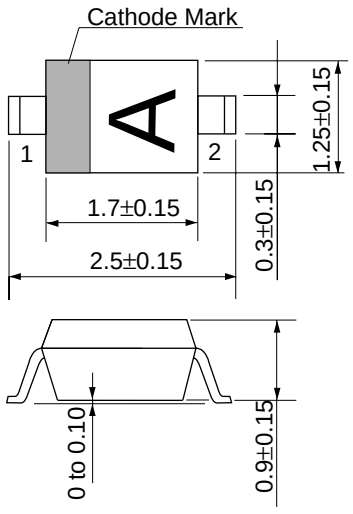
Package Dimensions

Unit : mm



1. Cathode
2. Anode

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