

HVU200A

Variable Capacitance Diode for VHF tuner

REJ03G0103-0500Z
(Previous: ADE-208-067D)
Rev.5.00
Sep.29.2003

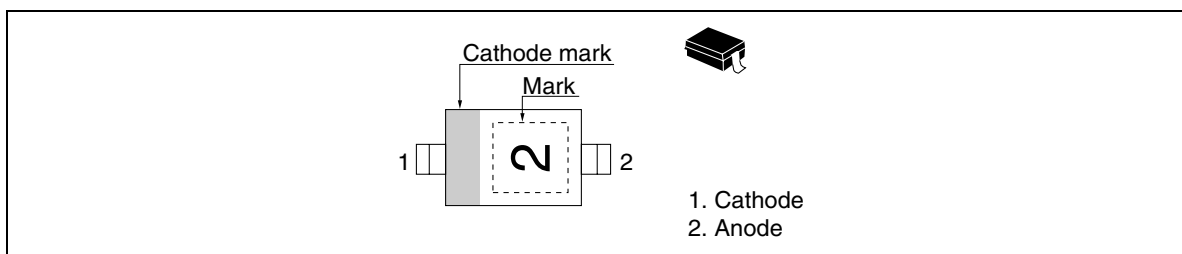
Features

- High capacitance ratio ($n = 10$ min) 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
HVU200A	2	URP

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	32	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 current	I_{R1}	—	—	10	nA	$V_R = 30\text{ V}$
	I_{R2}	—	—	100		$V_R = 30\text{ V}$, $T_a = 60^\circ\text{C}$
Capacitance	C_2	27.7	—	31.8	pF	$V_R = 2\text{ V}$, $f = 1\text{ MHz}$
	C_{25}	2.67	—	3.03		$V_R = 25\text{ V}$, $f = 1\text{ MHz}$
Capacitance ratio	n	10.0	—	—	—	C_2/C_{25}
Series resistance	r_s	—	—	0.7	Ω	$V_R = 5\text{ V}$, $f = 470\text{ MHz}$
Matching error	$\Delta C/C^{*1}$	—	—	2.0	%	$V_R = 2\text{ to }25\text{ V}$, $f = 1\text{ MHz}$

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

$$\Delta C/C = \frac{(C_{\max} - C_{\min})}{C_{\min}} \times 100 (\%)$$

Main Characteristic

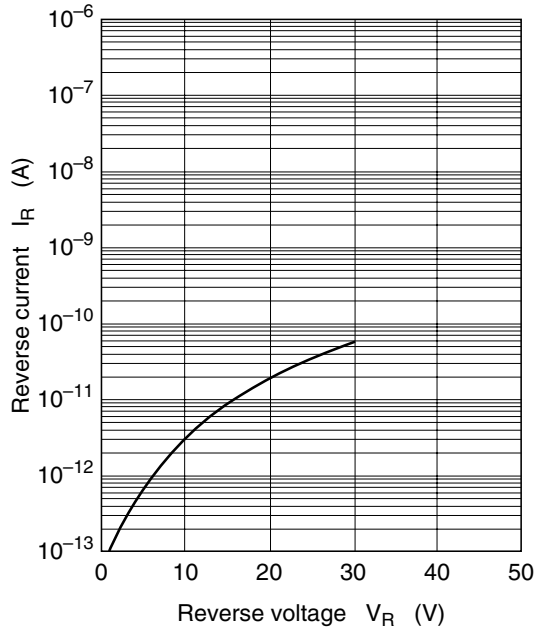


Fig.1 Reverse current vs. Reverse voltage

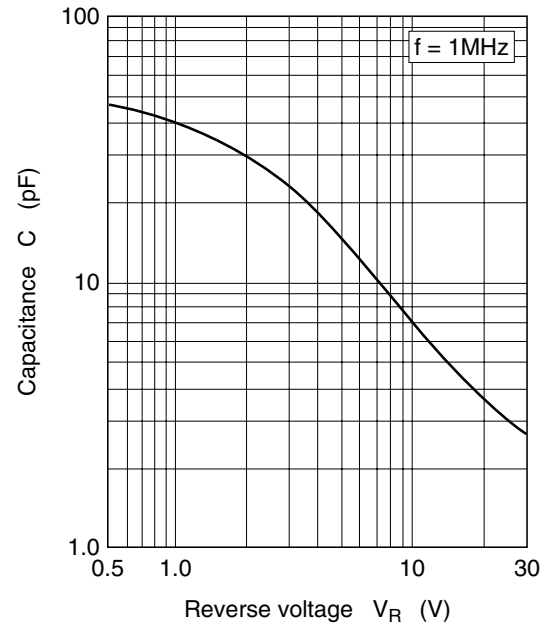


Fig.2 Capacitance vs. Reverse voltage

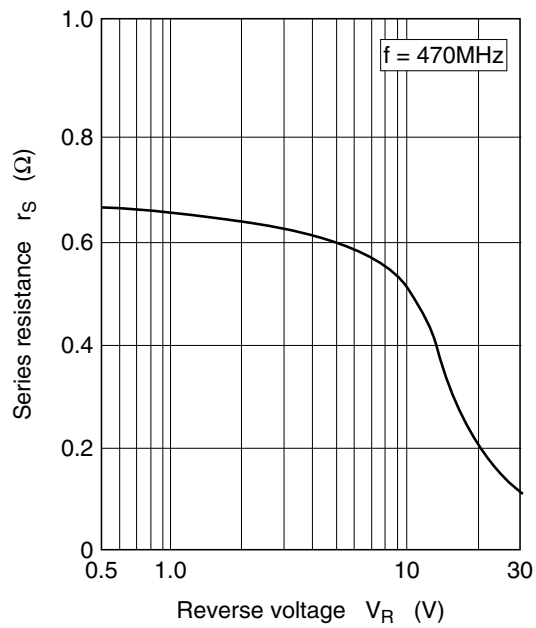


Fig.3 Series resistance vs. Reverse voltage

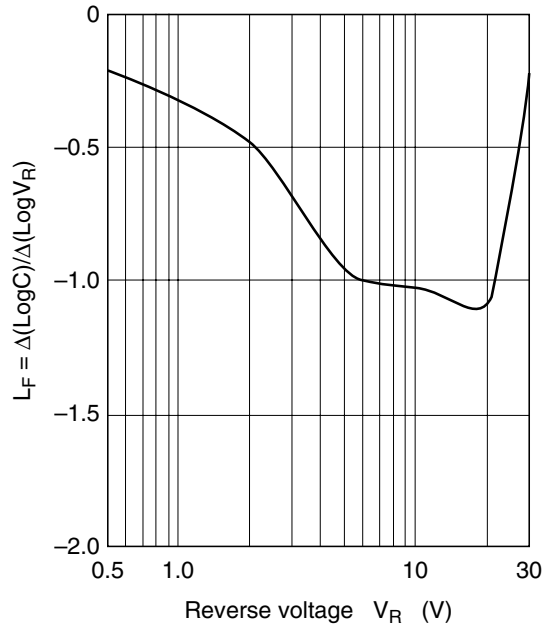
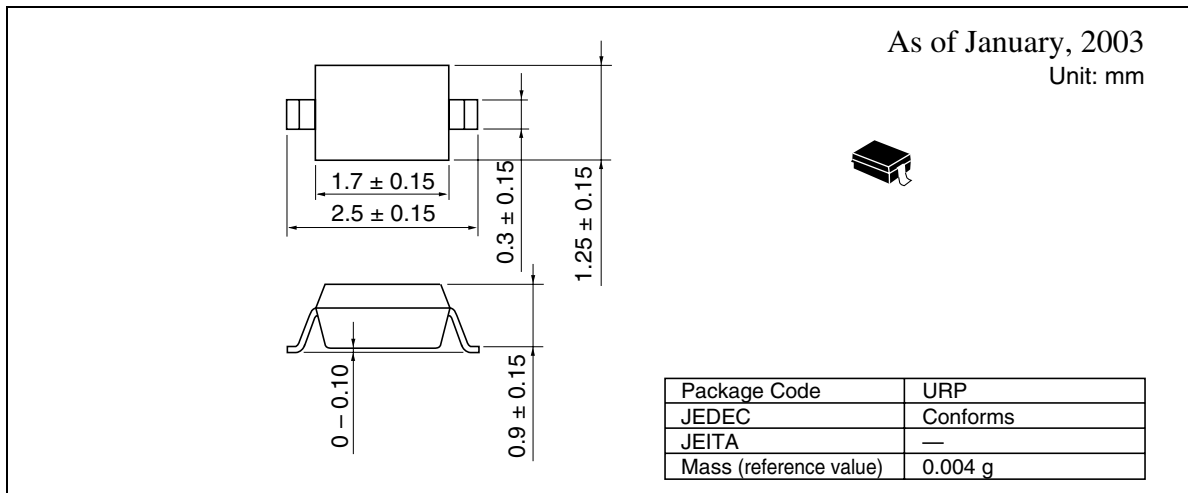


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions



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