

## HVU328C

### Variable Capacitance Diode for VHF tuner

REJ03G0216-0100Z

Rev.1.00

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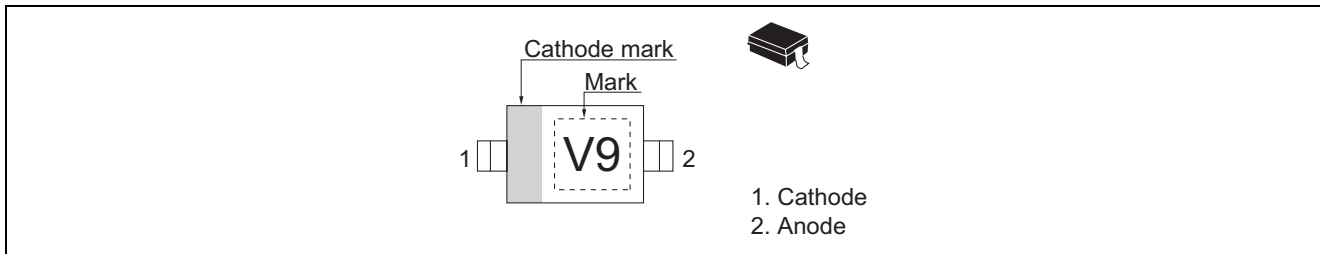
#### Features

- Low voltage type (tuning voltage 1 to 10V), it is suitable for ET without DC/DC converter.
- High capacitance ratio ( $n = 14.5$  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
HVU328C	V9	URP

#### Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	15	V
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

**Electrical Characteristics**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I <sub>R1</sub>	—	—	10	nA	V <sub>R</sub> = 10 V
	I <sub>R2</sub>	—	—	100		V <sub>R</sub> = 10 V, Ta = 60°C
Capacitance	C <sub>1</sub>	41.0	—	45.0	pF	V <sub>R</sub> = 1 V, f = 1 MHz
	C <sub>10</sub>	2.6	—	2.9		V <sub>R</sub> = 10 V, f = 1 MHz
Capacitance ratio	n	14.5	—	—	—	C <sub>1</sub> / C <sub>10</sub>
Series resistance	r <sub>s</sub>	—	—	1.2	Ω	V <sub>R</sub> = 5 V, f = 470 MHz
Matching error	ΔC/C *1	—	—	2.0	%	V <sub>R</sub> = 1 to 10 V, f = 1 MHz

Note: 1. C.C system (Continuous Connected taping system) enable to make any 10 pcs of C/C continuous in a reel , expect extension to another group.

Calculate Matching

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

Main Characteristic

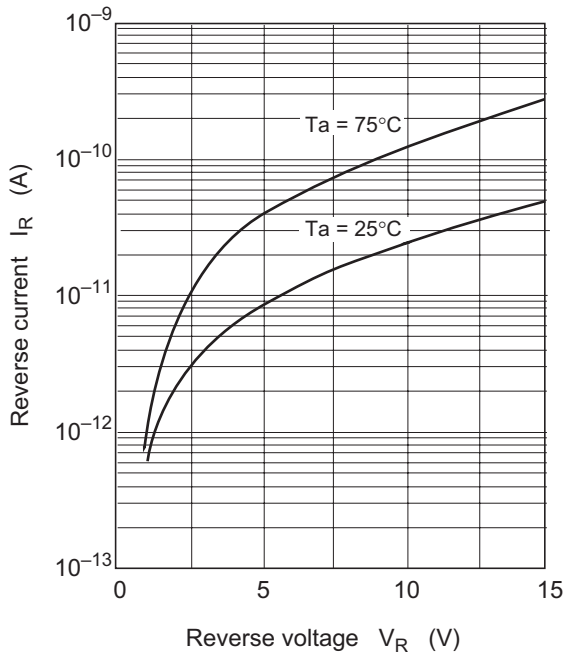


Fig.1 Reverse current vs. Reverse voltage

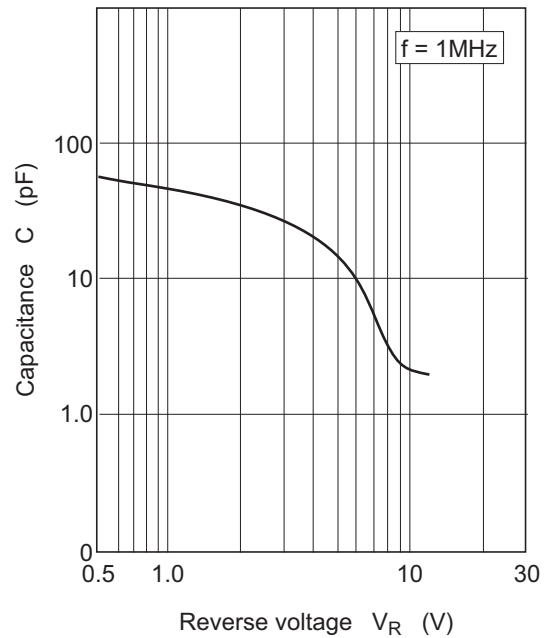


Fig.2 Capacitance vs. Reverse voltage

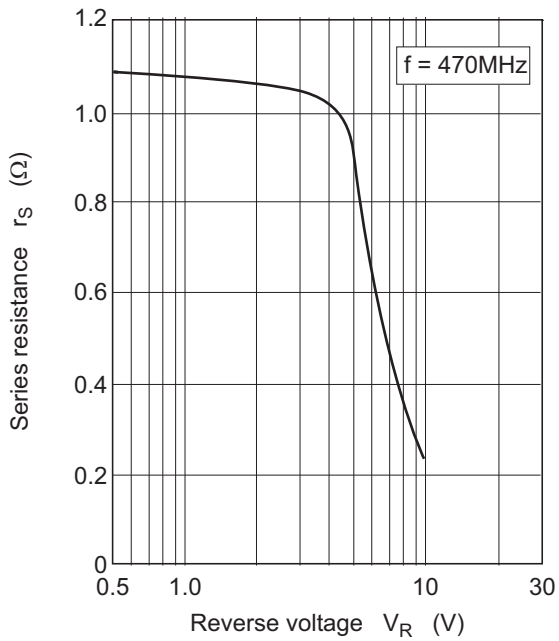


Fig.3 Series resistance vs. Reverse voltage

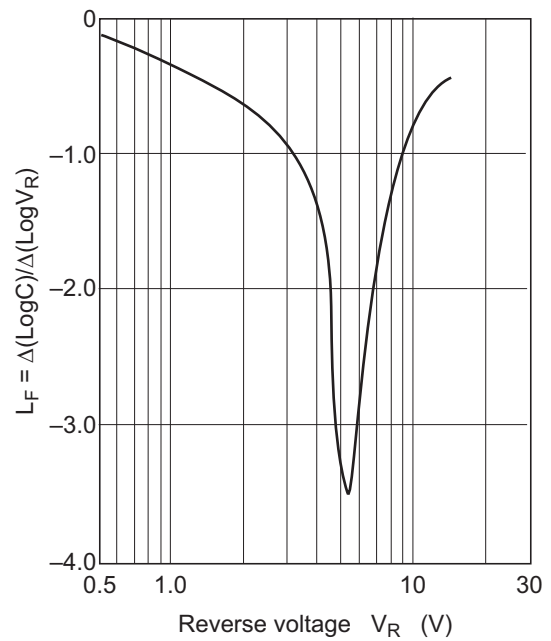
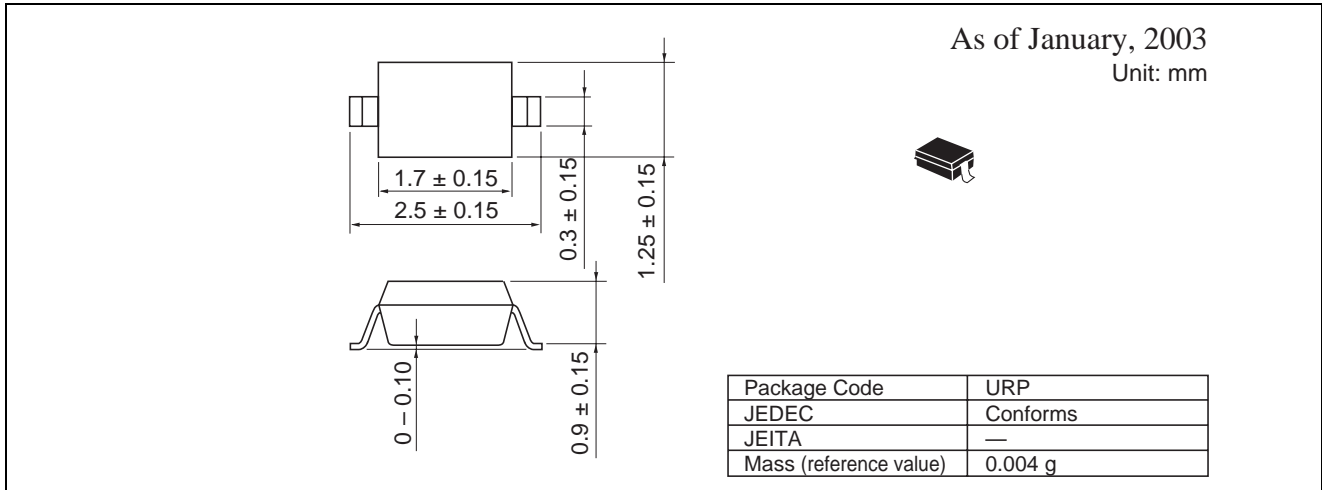


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions



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