# Variable Capacitance Diode for VHF tuner

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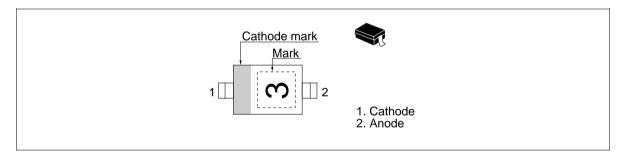
#### Features

- Low series resistance. (rs=11.0Ωmax)
- Low series resistance and good C-V linearity.
- <u>U</u>ltra small <u>Resin Package</u> (URP) is suitable for surface mount design.

#### **Ordering Information**

Туре No.	Laser Mark	Package Code
HVU306A	3	URP

#### Outline





#### **Absolute Maximum Ratings** (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	32	V
Junction temperature	Тј	125	°C
Storage temperature	Tstg	–55 to +125	°C

#### **Electrical Characteristics** (Ta = 25°C)

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse current	I <sub>R1</sub>	_	_	10	nA	$V_R = 30V$
	I <sub>R2</sub>	—	—	100		$V_{R} = 30V, Ta = 60^{\circ}C$
Capacitance	<b>C</b> <sub>2</sub>	29.3	_	34.2	pF	$V_R = 2V$ , f = 1MHz
	C <sub>25</sub>	2.57	_	2.92		$V_{R}$ = 25V, f = 1MHz
Capacitance ratio	n	11.0	—	_	—	C <sub>2</sub> /C <sub>25</sub>
Series resistance	r <sub>s</sub>		—	0.75	Ω	V <sub>R</sub> = 5V, f = 470MHz
Matching error	$\Delta C/C^{*1}$	—	—	2.0	%	$V_{R} = 2 \text{ to } 25V, f = 1 \text{ MHz}$

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

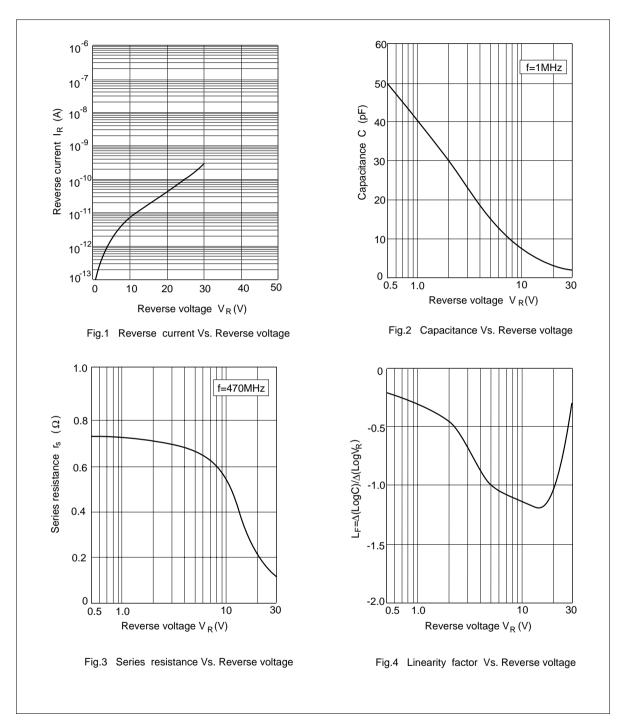
(Cmax-Cmin)

ΔC/C= \_\_\_\_\_ x 100 (%)

Cmin

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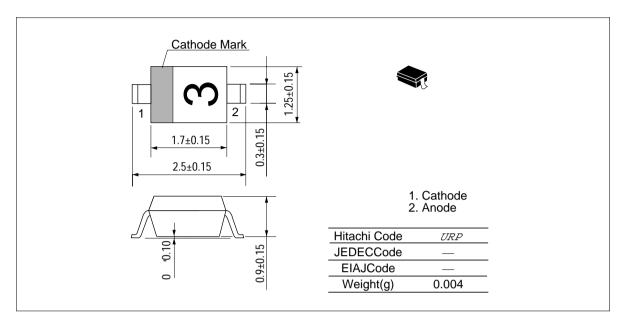
#### Main Characteristic



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#### **Package Dimensions**

Unit : mm



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