Variable Capacitance Diode
for Electronic Tuning

HVU202A

SOD– 323

FEATURES

- Low series resistance and good C-V linearity.

- Suitable for compact ET tuner.

- Ultra small Resin Package (URP) is suitable for surface mount design.

1 CATHODE   2 ANODE
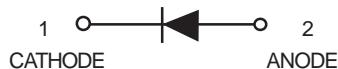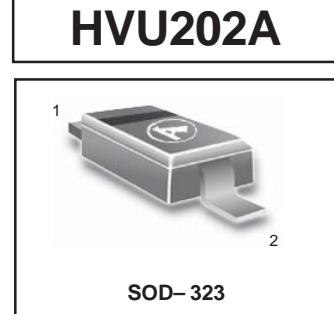
DEVICE MARKING

HVU202A = Q

ABSOLUTE MAXIMUM RATINGS $(T_A = 25°C)$

Item	Symbol	Value	Unit
Reversevoltage	V_R	34	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	− 55 to +125	°C

ELECTRICAL CHARACTERISTICS $(T_A = 25°C)$

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	–	–	10	nA	$V_R = 32V$
	I_{R2}	–	–	100		$V_R = 32V, T_A = 60°C$
Capacitance	C_2	14.11	–	16.47	pF	$V_R = 2V, f = 1 MHz$
	C_{25}	2.06	–	2.35		$V_R = 25V, f = 1 MHz$
Capacitance ratio	n	6.2	–	–	–	C_2/ C_{25}
Series resistance	r_s	–	–	0.57	Ω	$V_R = 5V, f = 470 MHz$
Matching error	$\Delta C/C^{*1}$	–	–	2.0	%	$V_R = 2$ to $25V, f = 1 MHz$

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,

$$\Delta C/C = \frac{(C_{max}-C_{min})}{C_{min}} \times 100 \ (\%)$$
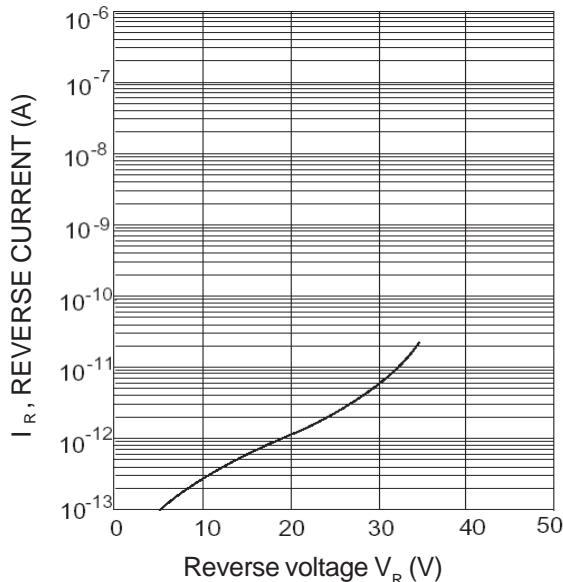
Fig.1 Reverse current Vs. Reverse voltage
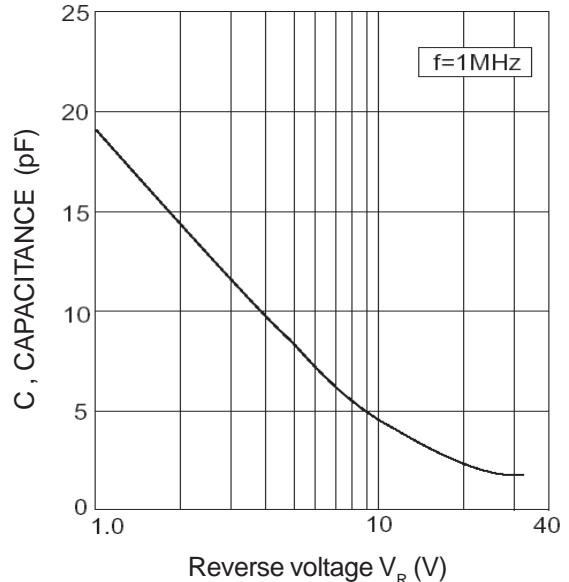
Fig.2 Capacitance Vs. Reverse voltage
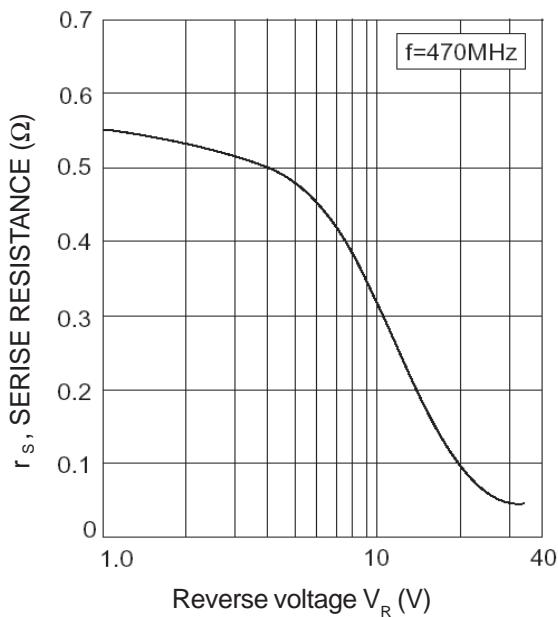
Fig.3 Series resistance Vs. Reverse voltage
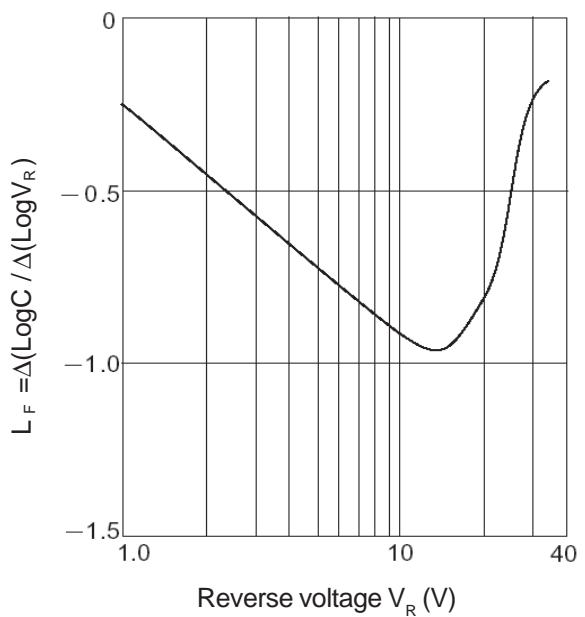
Fig.4 Linearity factor Vs. Reverse voltage