

HVU362

Variable Capacitance Diode

VCXO

HITACHI

Rev. 0
May. 1995

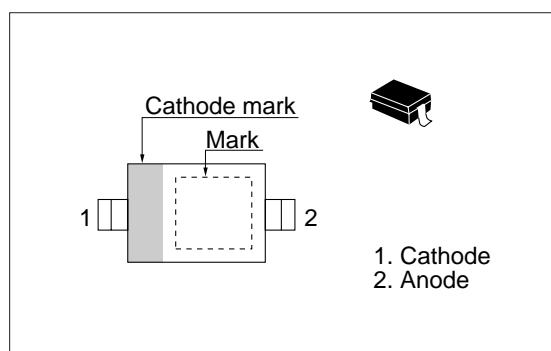
Features

- High capacitance ratio.(n=3.0min)
- Good C-V linearity.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU362	V2	URP

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_{R1}	—	—	10	nA	$V_R = 10 \text{ V}$
	I_{R2}	—	—	100	nA	$V_R = 10 \text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_1	41.6	—	49.9	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
	C_4	10.1	—	14.8	pF	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$
Capacitance ratio	n	3.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	2.0	Ω	$V_R = 4 \text{ V}, f = 100 \text{ MHz}$
ESD-Capability	—	80	—	—	V	* $C=200\text{pF}$, Both forward and reverse direction 1 pulse.

* Failure criterion ; $I_R \geq 20\text{nA}$ at $V_R = 10 \text{ V}$

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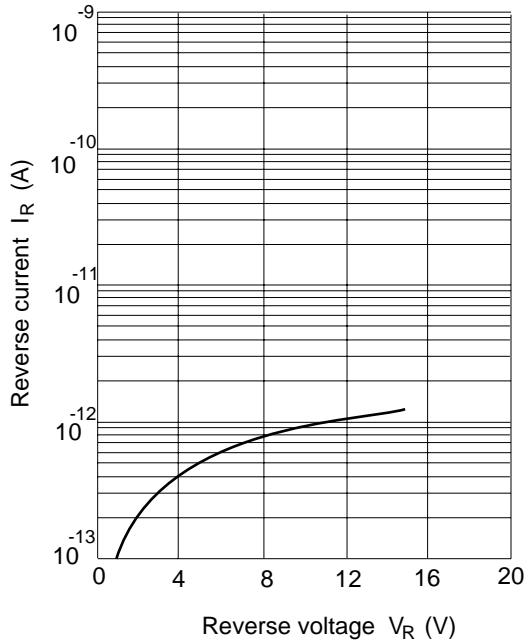


Fig.1 Reverse current Vs.
Reverse voltage

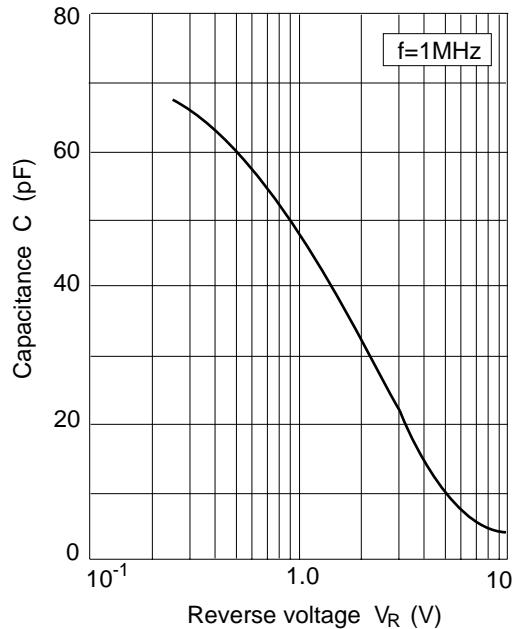


Fig.2 Capacitance Vs.
Reverse voltage

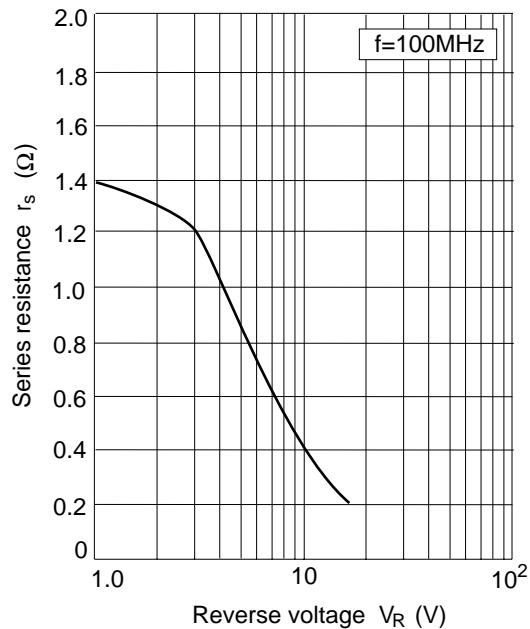


Fig.3 Series resistance Vs.
Reverse voltage

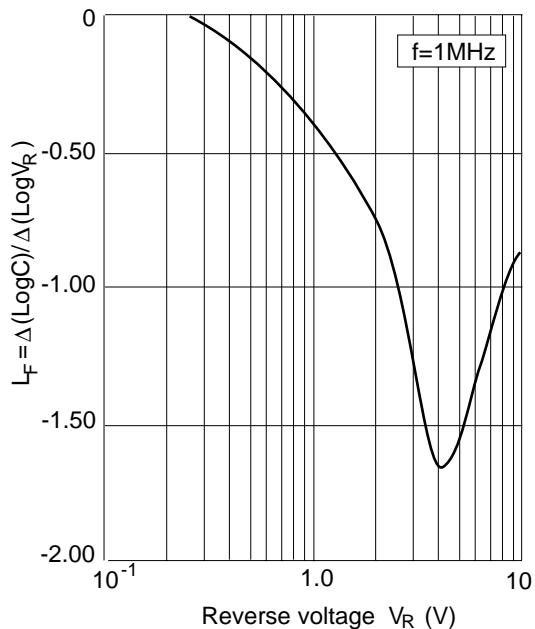


Fig.4 Linearity factor Vs.
Reverse voltage

Package Dimensions

Unit: mm

