

HVU383B

Variable Capacitance Diode for VCO

REJ03G0082-0100Z
(Previous: ADE-208-824)
Rev.1.00
Sep.17.2003

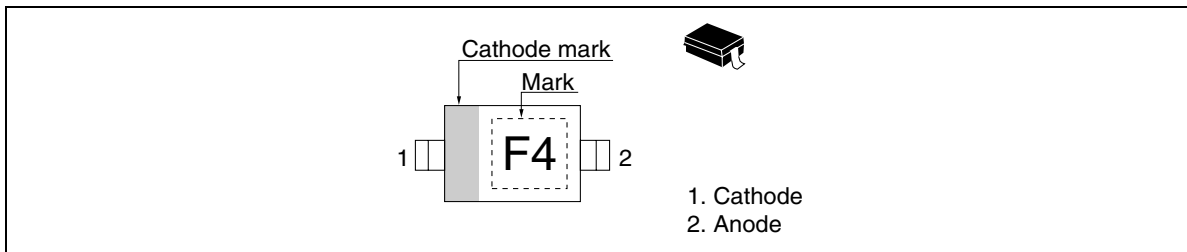
Features

- High capacitance ratio. ($n = 2.0$ min)
- Low series resistance. ($r_s = 0.5 \Omega$ max)
- Good C-V linearity.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU383B	F4	URP

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	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	$V_R = 15\text{ V}$
	I_{R2}	—	—	100		$V_R = 15\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	C_1	19.0	—	21.0	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	C_4	8.5	—	10.0		$V_R = 4\text{ V}, f = 1\text{ MHz}$
	C_7	4.5	—	5.5		$V_R = 7\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n_1	2.0	—	—	—	C_1/C_4
	n_2	3.5	—	—	—	C_1/C_7
Series resistance	r_s	—	—	0.5	Ω	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Main Characteristic

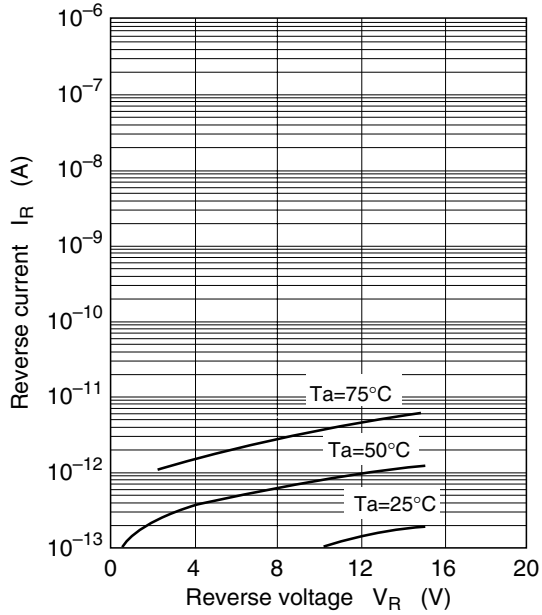


Fig.1 Reverse current vs. Reverse voltage

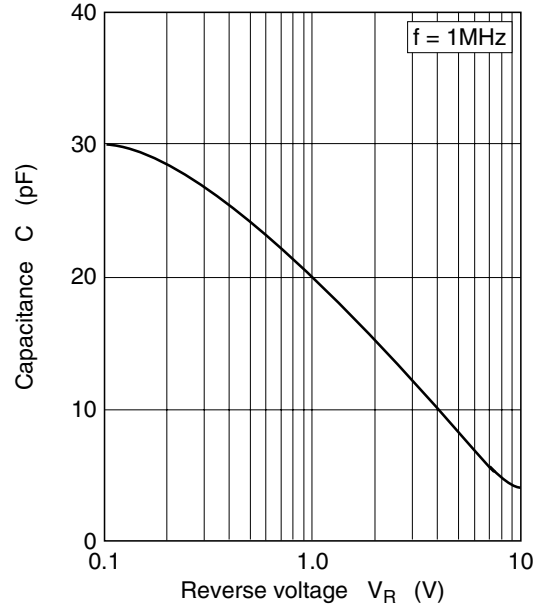


Fig.2 Capacitance vs. Reverse voltage

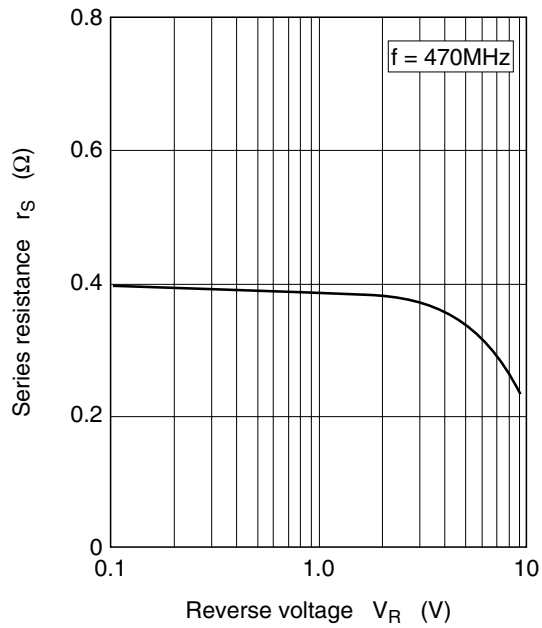


Fig.3 Series resistance vs. Reverse voltage

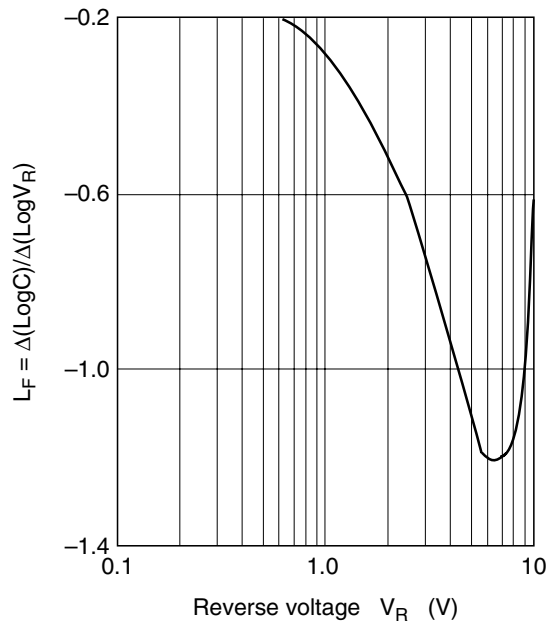
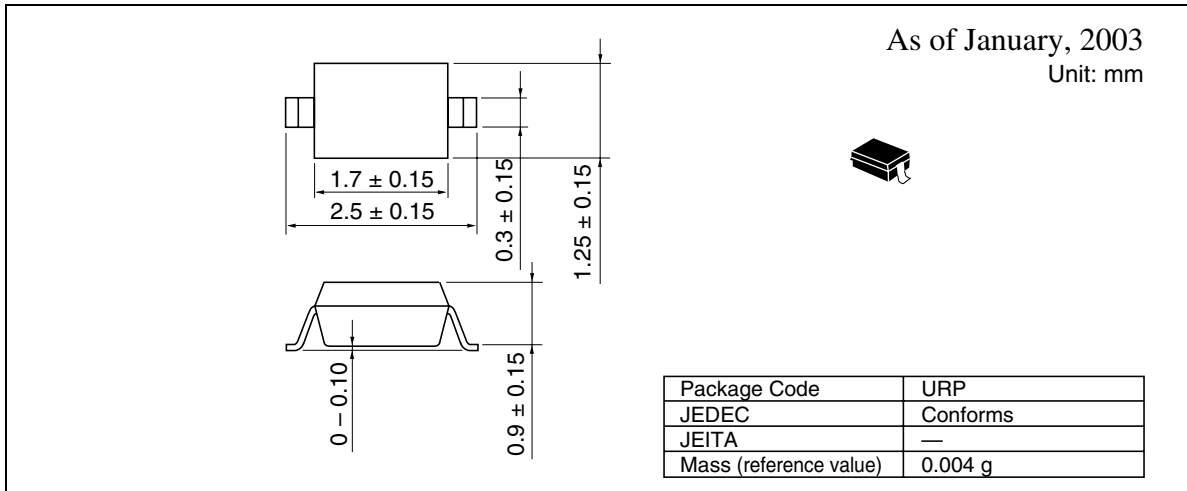


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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