HVU383B

Variable Capacitance Diode for VCO

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

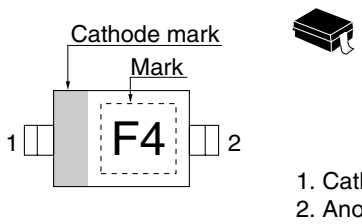
Features

- High capacitance ratio. (n = 2.0 min)
- Low series resistance. (rs = 0.5 Ω 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



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–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 V
	I_{R2}	—	—	100		V_R = 15 V, Ta = 60°C
Capacitance	C_1	19.0	—	21.0	pF	V_R = 1 V, f = 1 MHz
	C_4	8.5	—	10.0		V_R = 4 V, f = 1 MHz
	C_7	4.5	—	5.5		V_R = 7 V, f = 1 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 V, f = 470 MHz

Main Characteristic

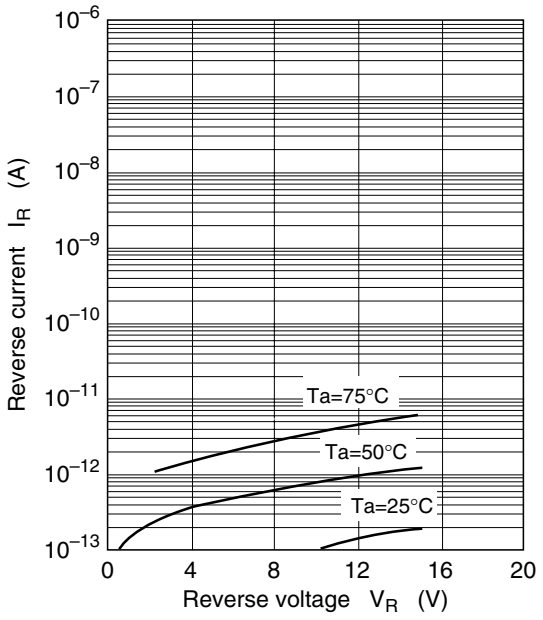


Fig.1 Reverse current vs. Reverse voltage

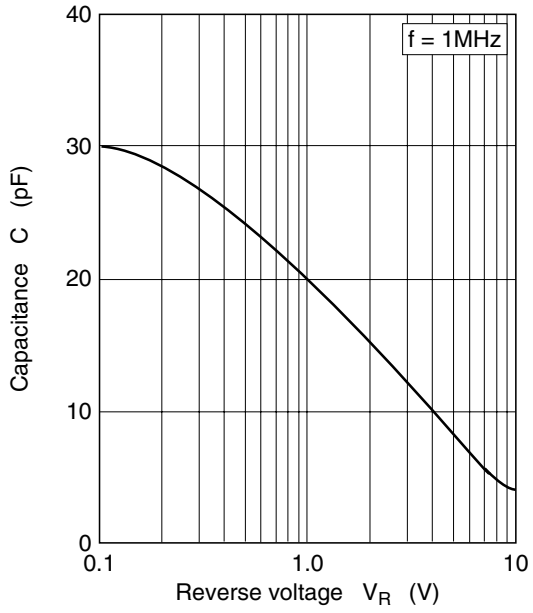


Fig.2 Capacitance vs. Reverse voltage

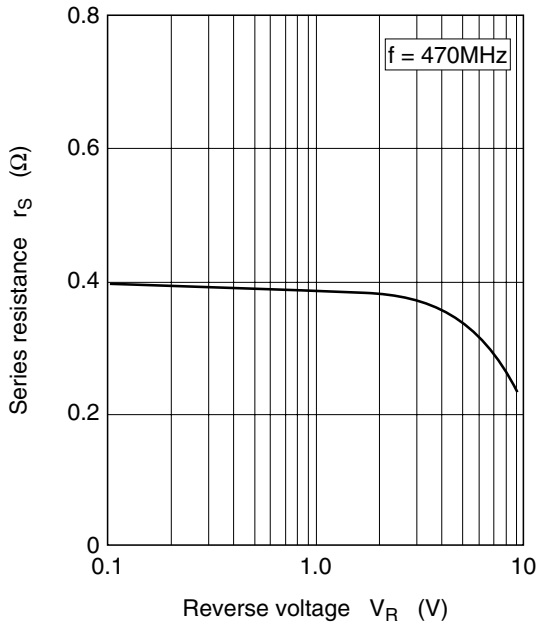


Fig.3 Series resistance vs. Reverse voltage

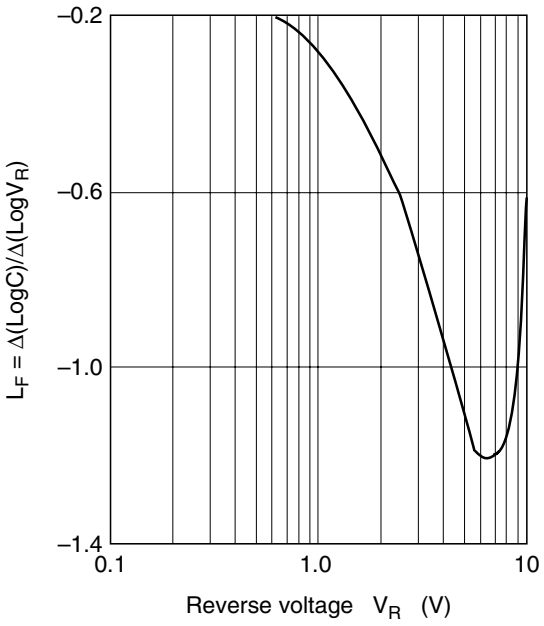
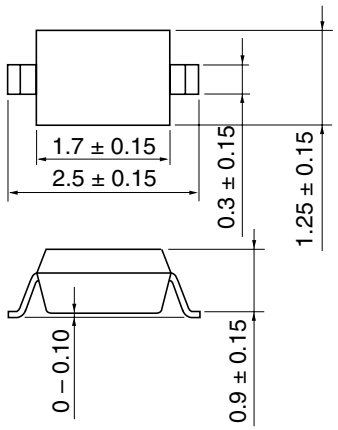


Fig.4 Linearity factor vs. Reverse voltage

Package Dimensions

As of January, 2003

Unit: mm





Package Code	URP
JEDEC	Conforms
JEITA	—
Mass (reference value)	0.004 g

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