

HVU383B

Variable Capacitance Diode for VCO

HITACHI

ADE-208-824 (Z)
Rev 0
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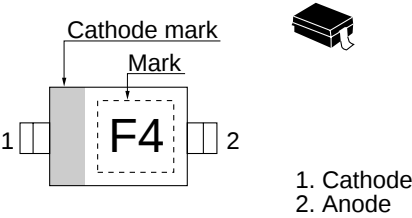
Features

- High capacitance ratio. ($n=2.0$ min at $C1/C4$).
- Low series resistance. ($r_s=0.5\Omega$ max).
- Good linearity of C-V curve.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVU383B	F4	URP

Outline



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	$V_R = 15V$
	I_{R2}	—	—	100		$V_R = 15V, T_a = 60\text{ °C}$
Capacitance	C_1	19.0	—	21.0	pF	$V_R = 1V, f = 1\text{ MHz}$
	C_4	8.5	—	10.0		$V_R = 4V, f = 1\text{ MHz}$
	C_7	4.5	—	5.5		$V_R = 7V, f = 1\text{ MHz}$
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	$V_R = 1V, f = 470\text{ MHz}$

Main Characteristic

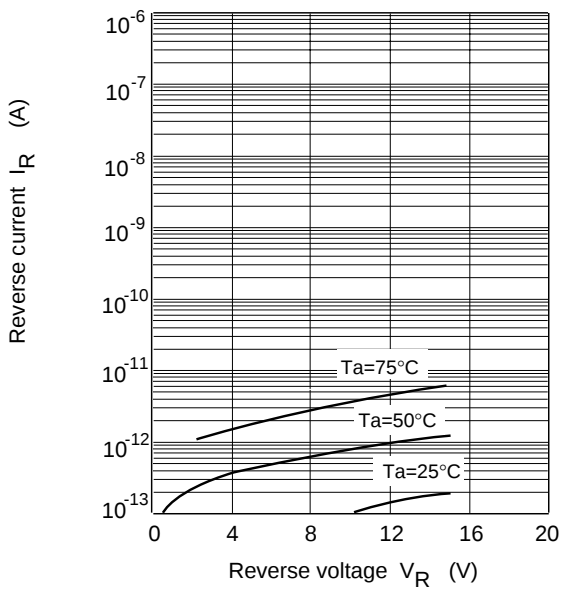


Fig.1 Reverse current Vs. Reverse voltage

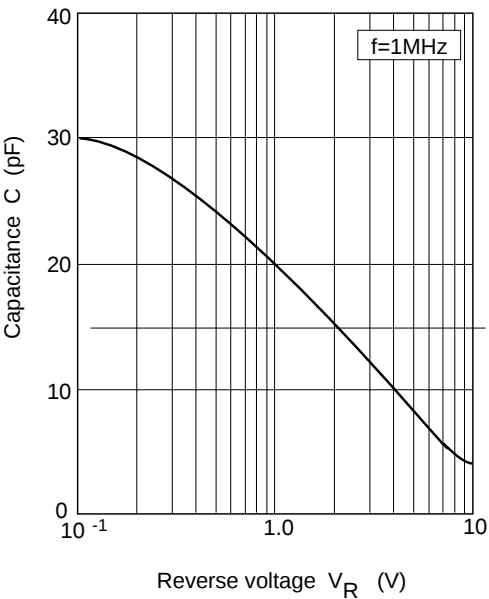


Fig.2 Capacitance Vs. Reverse voltage

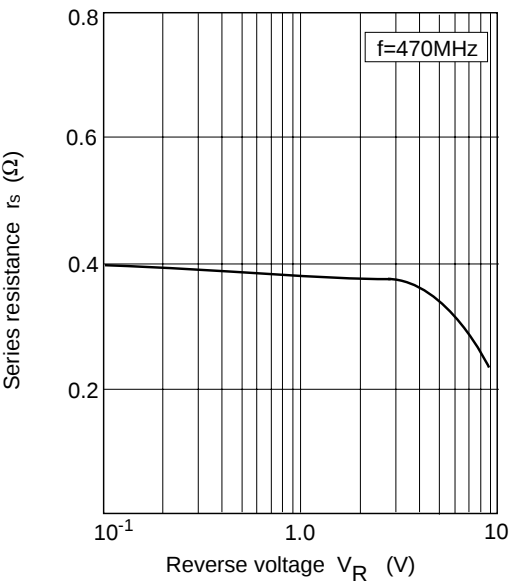


Fig.3 Series resistance Vs. Reverse voltage

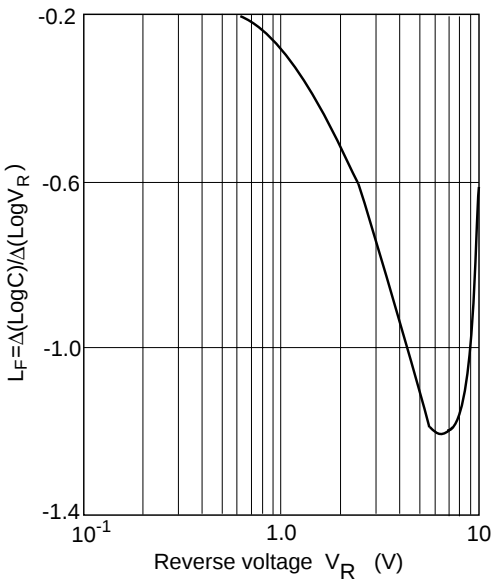
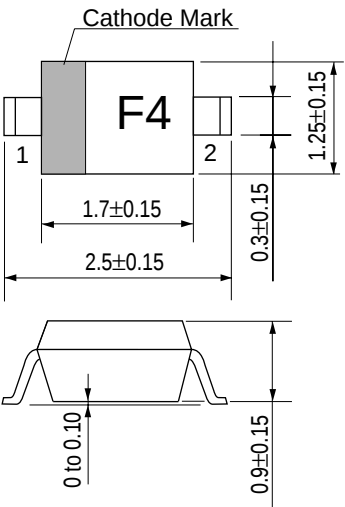


Fig.4 L_F Vs. Reverse voltage

Package Dimensions

Unit : mm



- 1. Cathode
- 2. Anode

Hitachi Code	URP
JEDECCode	
EIAJCode	
Mass(g)	0.004

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