ADE-208-003A(Z)

HVU358
Variable Capacitance Diode for VCO

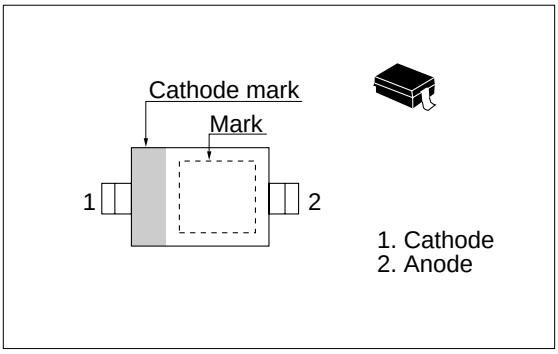
HITACHI

Preliminary
Rev. 1
Feb. 1993

Features

- Low series resistance. (r_s=0.4Ω max)
- High capacitance ratio. (n=2.0min at C_1/C_4)
- Good linearity of C-V curve.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Outline



Ordering Information

Type No.	Laser Mark	Package Code
HVU358	R	URP

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 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
Capacitance ratio	n	2.0	—	—	—	C_1 / C_4
Series resistance	r_s	—	—	0.40	Ω	V_R = 1 V , f = 470MHz

HVU358

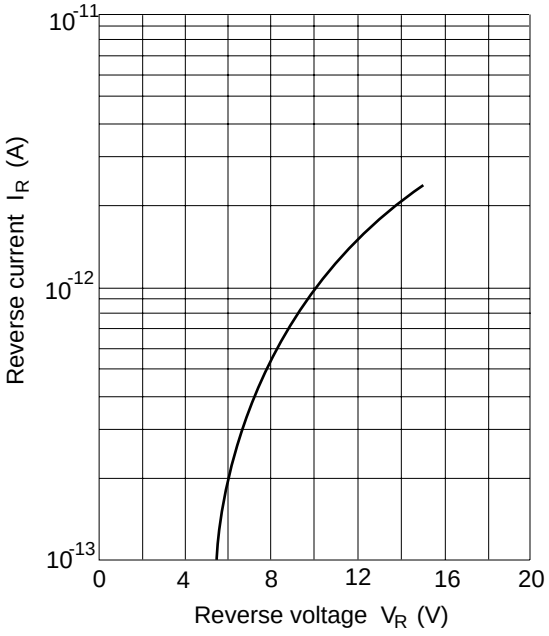


Fig.1 Reverse current Vs. Reverse voltage

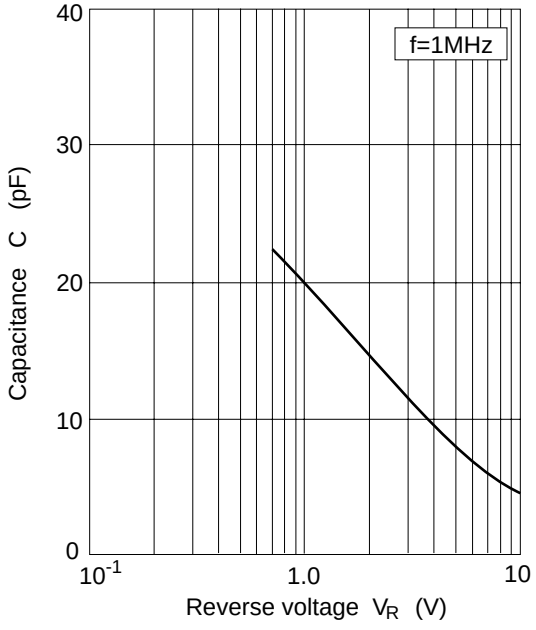


Fig.2 Capacitance Vs. Reverse voltage

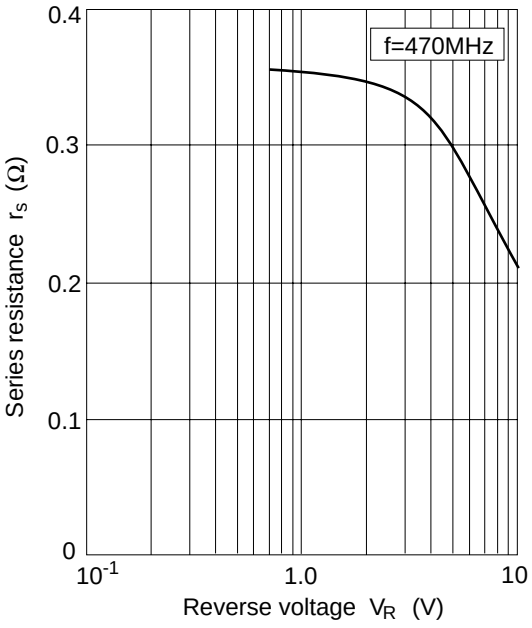


Fig.3 Series resistance Vs. Reverse voltage

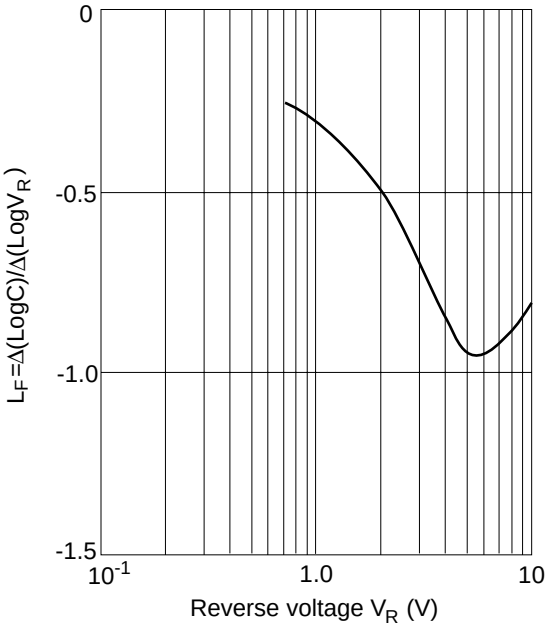
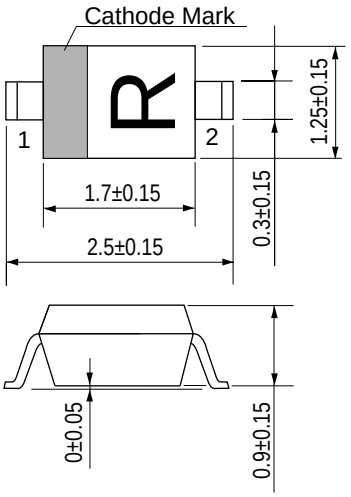


Fig.4 Linearity factor Vs. Reverse voltage

Package Dimensions

Unit: mm



1 Cathode
2 Anode

HITACHI Code	URP
JEDEC Code	—
EIAJ Code	—
Weight (g)	0.004