# HVC366

Variable Capacitance Diode for VCO

HITACHI

ADE-208-592 (Z)
Rev 0

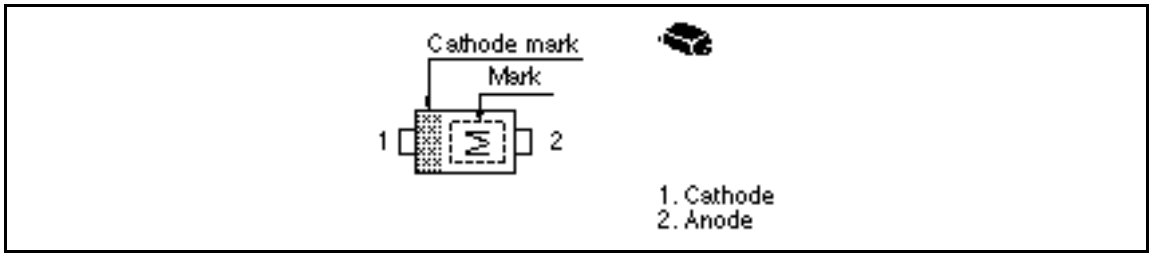
## Features

- Low series resistance. ($r_s$ = 0.60 Ω max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|---|---|---|
| HVC366 | M | UFP |

## Outline




Hitachi semiconductor

## 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 | $C_1$ | 6.30 | — | 6.80 | pF | $V_R$ = 1 V, f = 1 MHz |
| | $C_2$ | 4.35 | — | 4.95 | | $V_R$ = 2 V, f = 1 MHz |
| Capacitance ratio | n | 1.390 | — | — | — | $C_1$/ $C_2$ |
| Series resistance | $r_s$ | — | — | 0.60 | Ω | $V_R$ = 1 V, f = 470 MHz |

## Main Characteristic

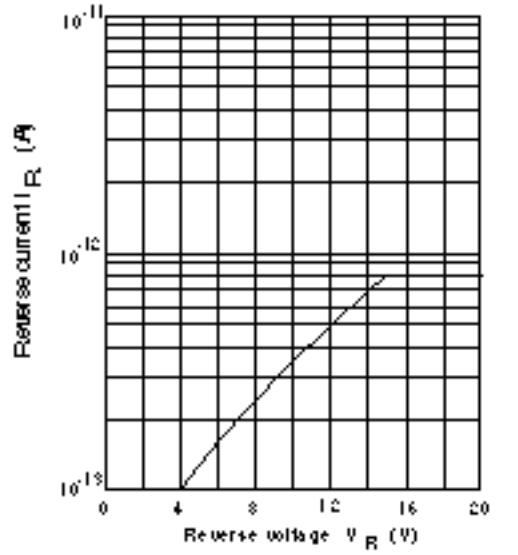



Fig.1 Reverse current Vs. Reverse voltage

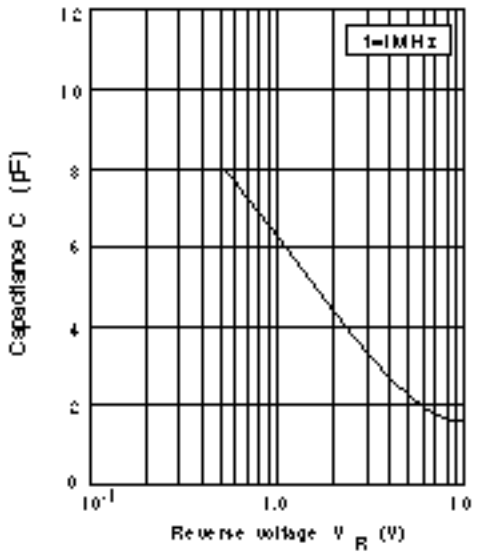



Fig.2 Capacitance Vs. Reverse voltage

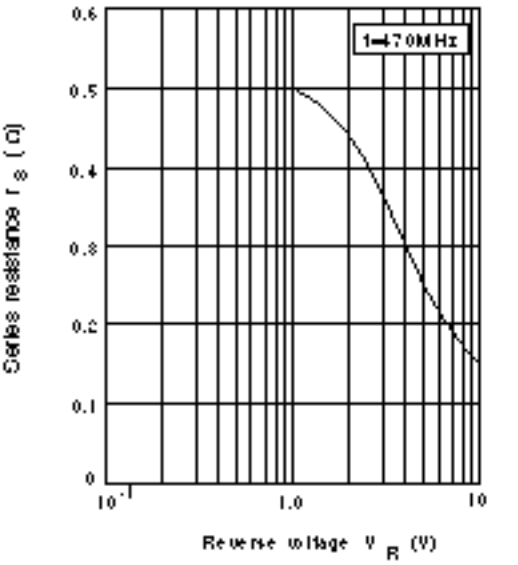



Fig.3 Series resistance Vs. Reverse voltage

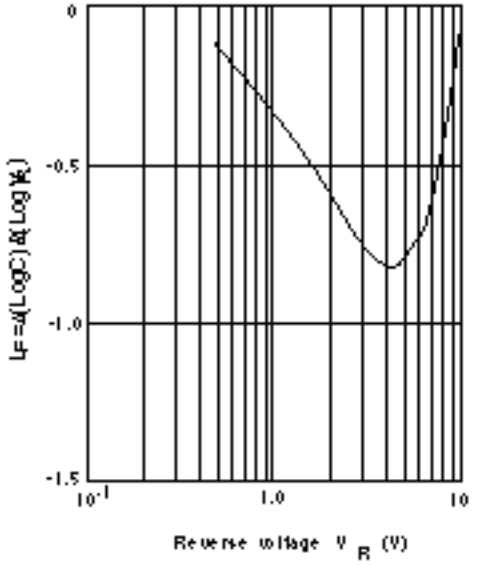



Fig.4 Linearity factor Vs. Reverse voltage

## Package Dimensions

Unit : mm