

## HVU350B

### Variable Capacitance Diode for VCO

REJ03G0080-0200Z  
(Previous: ADE-208-430A)  
Rev.2.00  
Sep.17.2003

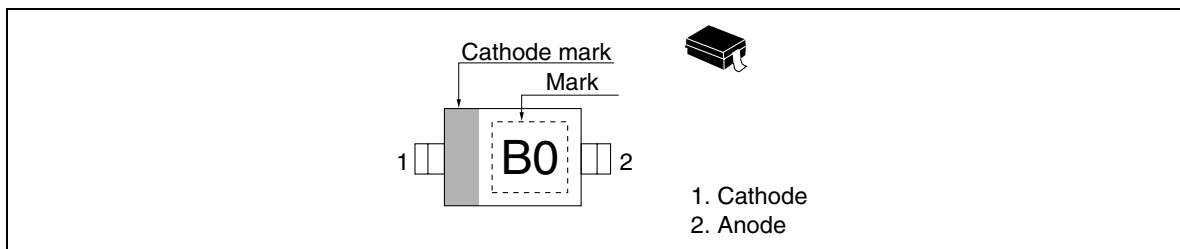
#### Features

- High capacitance ratio. ( $n = 2.8$  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 |
|----------|------------|--------------|
| HVU350B  | B0         | 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       | $C_1$    | 15.5 | —   | 17.0 | pF       | $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$        |
|                   | $C_4$    | 5.0  | —   | 6.0  |          | $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$        |
| Capacitance ratio | $n$      | 2.8  | —   | —    | —        | $C_1/C_4$                                      |
| Series resistance | $r_s$    | —    | —   | 0.5  | $\Omega$ | $V_R = 1\text{ V}$ , $f = 470\text{ MHz}$      |

## Main Characteristic

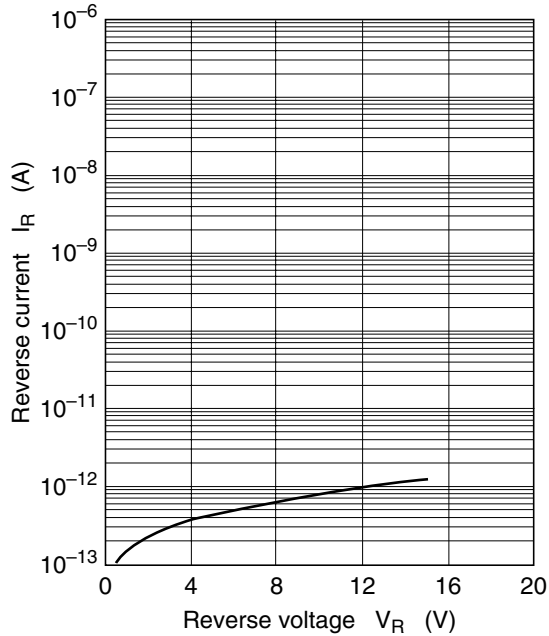


Fig.1 Reverse current vs. Reverse voltage

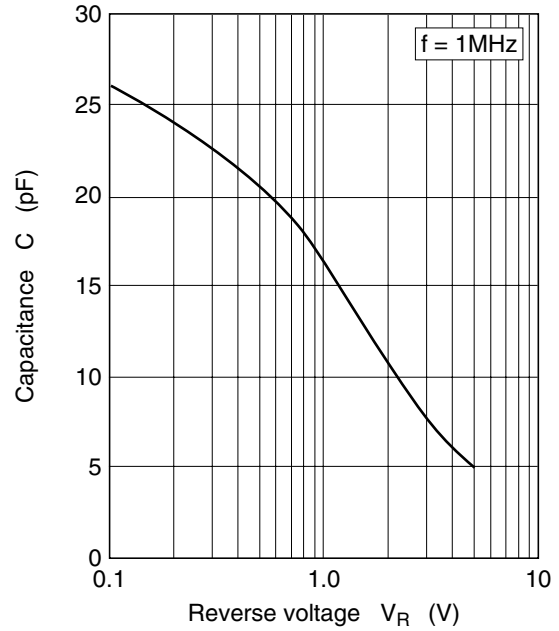


Fig.2 Capacitance vs. Reverse voltage

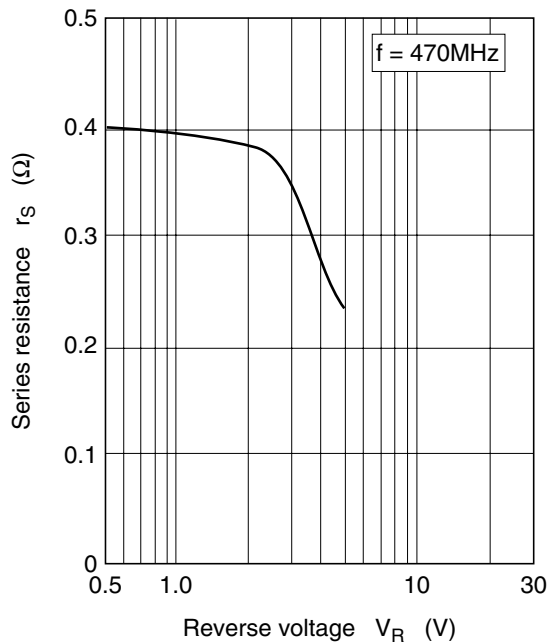


Fig.3 Series resistance vs. Reverse voltage

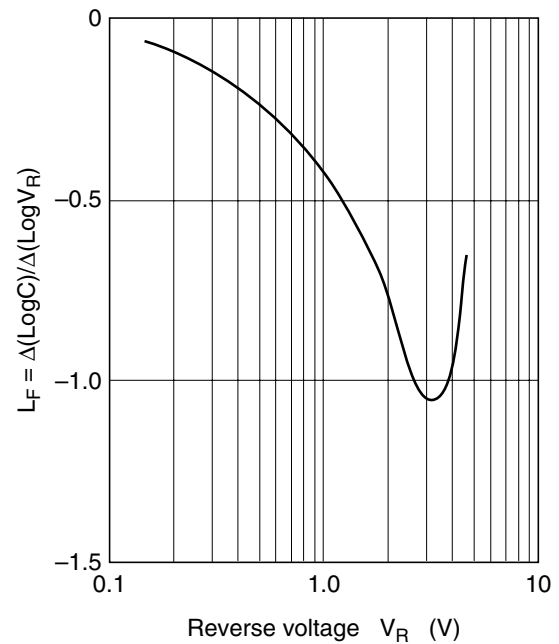
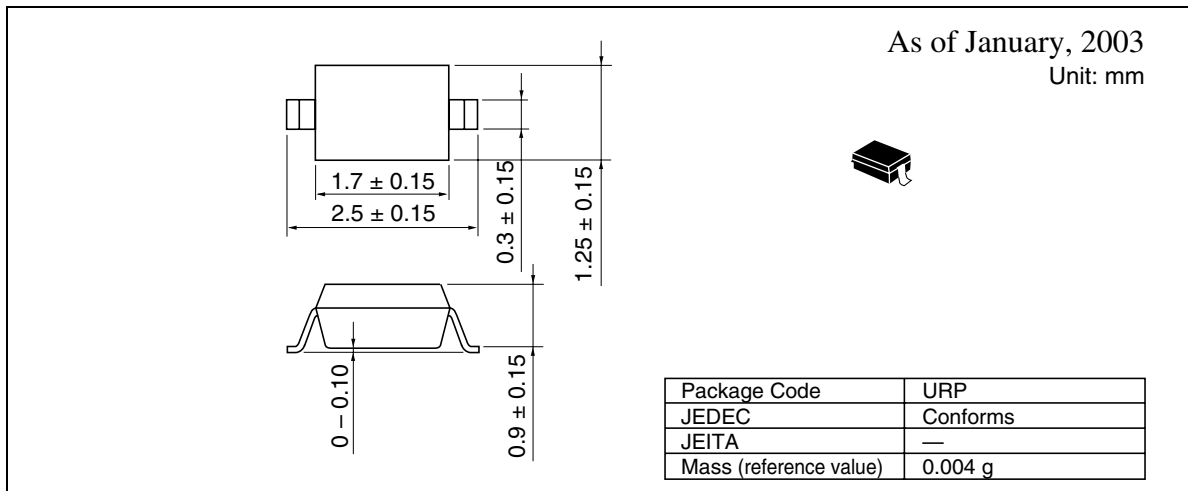


Fig.4 Linearity factor vs. Reverse voltage

## Package Dimensions



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