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# HVU362

Variable Capacitance Diode for VCO

REJ03G0217-0100Z Rev.1.00 Apr 16, 2004

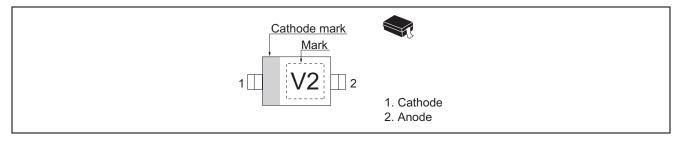
### Features

- High capacitance ratio. (n =3.0 min)
- Good C-V linearity.
- Ultra small Resin Package (URP) is suitable for surface mount design.

### **Ordering Information**

| Туре No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVU362   | V2         | URP          |

### **Pin Arrangement**





# **Absolute Maximum Ratings**

 $(Ta = 25^{\circ}C)$ 

|                      |                |             |      | ( ) |
|----------------------|----------------|-------------|------|-----|
| Item                 | Symbol         | Value       | Unit |     |
| Reverse voltage      | V <sub>R</sub> | 15          | V    |     |
| Junction temperature | Tj             | 125         | °C   |     |
| Storage temperature  | Tstg           | –55 to +125 | °C   |     |

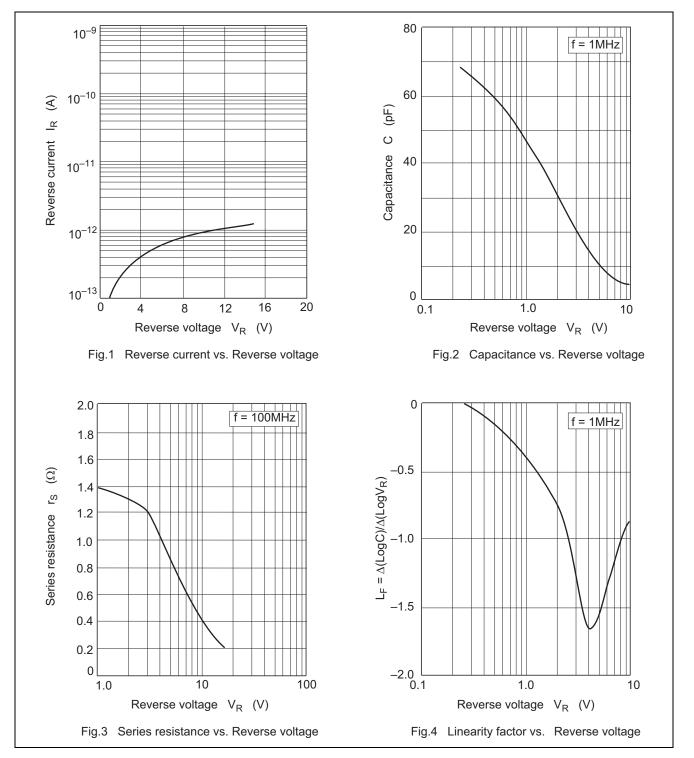
# **Electrical Characteristics**

|                   |                 |      |     |      |      | $(Ta = 25^{\circ}C)$                           |
|-------------------|-----------------|------|-----|------|------|------------------------------------------------|
| Item              | Symbol          | Min  | Тур | Max  | Unit | Test Condition                                 |
| Reverse current   | I <sub>R1</sub> | _    | _   | 10   | nA   | V <sub>R</sub> = 10 V                          |
|                   | I <sub>R2</sub> | _    | _   | 100  |      | V <sub>R</sub> = 10 V, Ta =60°C                |
| Capacitance       | C <sub>1</sub>  | 41.6 | _   | 49.9 | pF   | $V_R = 1 V, f = 1 MHz$                         |
|                   | C <sub>4</sub>  | 10.1 | _   | 14.8 |      | $V_R = 4 V, f = 1 MHz$                         |
| Capacitance ratio | n               | 3.0  | _   | _    | _    | C <sub>1</sub> / C <sub>4</sub>                |
| Series resistance | r <sub>s</sub>  | _    | _   | 2.0  | Ω    | V <sub>R</sub> = 4 V, f = 100 MHz              |
| ESD-Capability *1 |                 | 80   | _   |      | V    | C = 200 pF, Both forward and reverse direction |
|                   |                 |      |     |      |      | 1 pulse.                                       |

Note: 1. Failure criterion ;  $I_R \ge 20$  nA at  $V_R = 10$  V

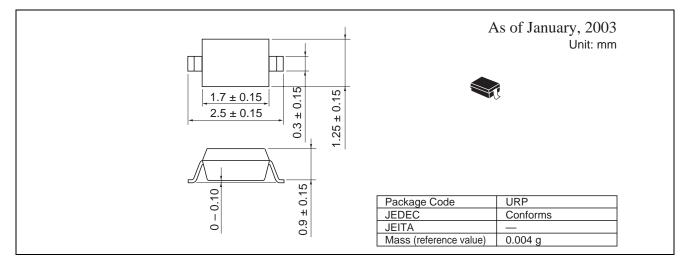


### **Main Characteristic**



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## **Package Dimensions**



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