

HVU17

Variable Capacitance Diode for VCO

REJ03G0079-0400Z
(Previous: ADE-208-021C)
Rev.4.00
Sep.17.2003

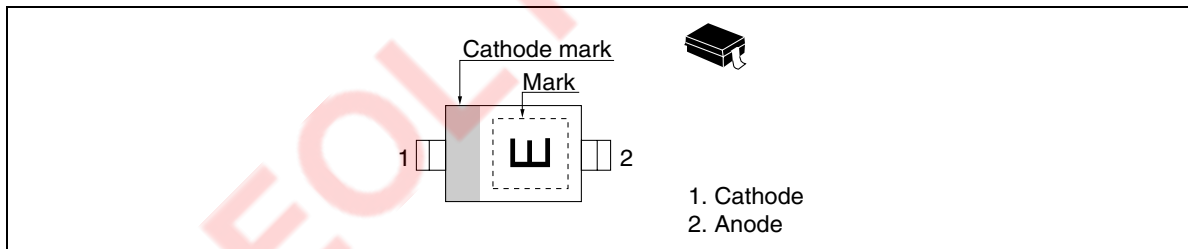
Features

- Good linearity of C-V curve.
- To be usable at low voltage.
- High figure of merit.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVU17 | E | 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 voltage | V_R | 15.0 | — | — | V | $I_R = 10 \mu A$ |
| Reverse current | I_R | — | — | 100 | nA | $V_R = 9 V$ |
| Capacitance | C_1 | 50.0 | — | 85.0 | pF | $V_R = 1 V, f = 1 MHz$ |
| | C_3 | 16.1 | — | 27.3 | | $V_R = 3 V, f = 1 MHz$ |
| | $C_{4.5}$ | 5.23 | — | 8.84 | | $V_R = 4.5 V, f = 1 MHz$ |
| Capacitance ratio | n | 5.60 | — | — | — | $C_1/C_{4.5}$ |
| Figure of merit | Q | 50 | — | — | — | $V_R = 2.5 V, f = 10 MHz$ |
| ESD-Capability *1 | — | 80 | — | — | V | C = 200 pF, Both forward and reverse direction 1 pulse. |

Note: 1. Failure criterion ; $I_R \geq 100nA$ at $V_R = 9 V$

Main Characteristic

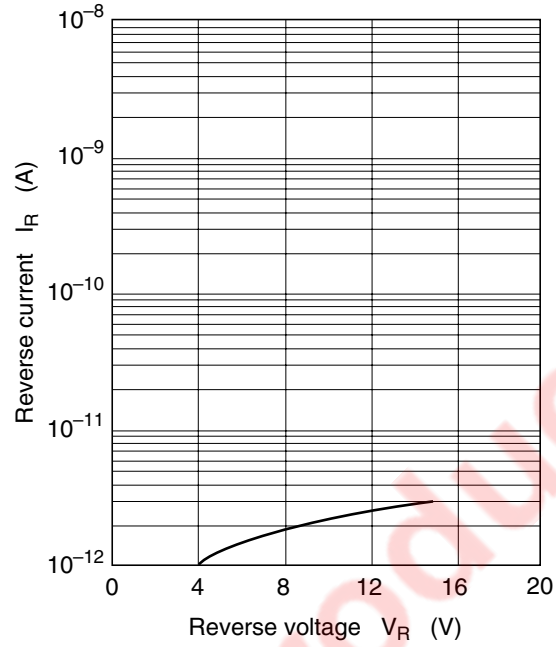


Fig.1 Reverse current vs. Reverse voltage

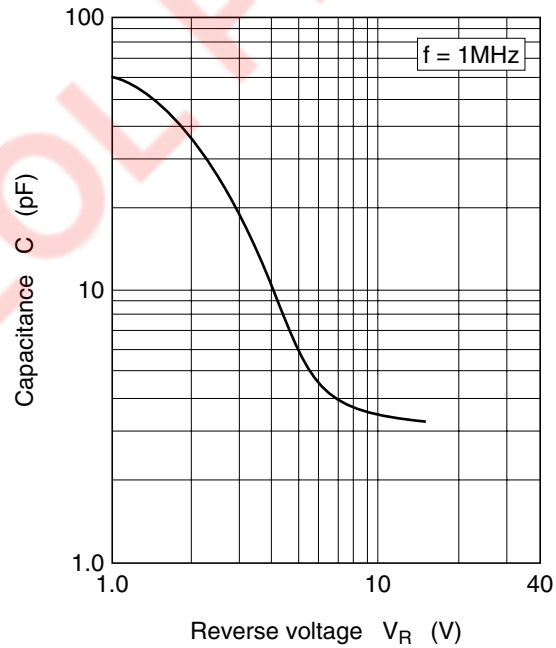
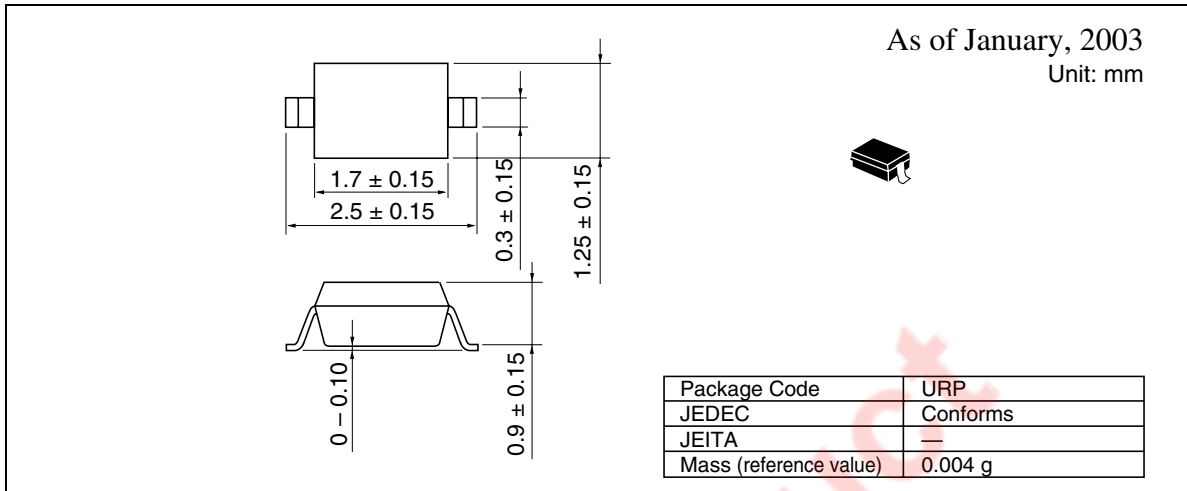


Fig.2 Capacitance vs. Reverse voltage

Package Dimensions



EOL Product

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April 1st, 2010
Renesas Electronics Corporation

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