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# HVU89

Variable Capacitance Diode for AFC

# HITACHI

ADE-208-066E(Z)

Rev 5

June 1996

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## Features

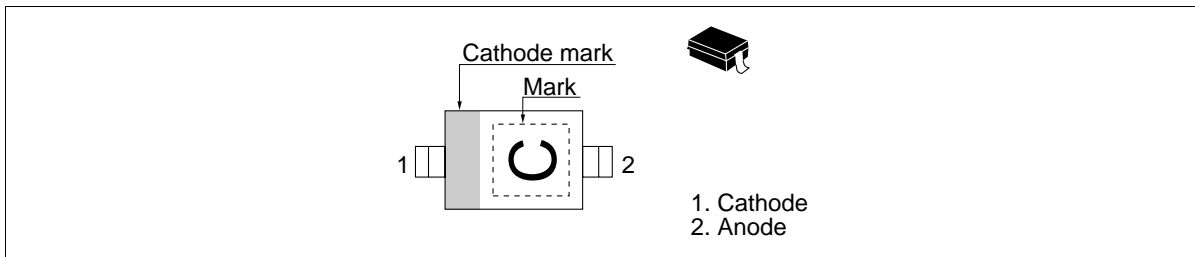
- High capacitance ratio to wide tuning band width. ( $C2/C10=2.5\sim3.4$ )
- Low series resistance. ( $r_s=1.2\Omega_{max}$ )
- Ultra small Resin Package (URP) is suitable for surface mount design.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVU89    | C          | URP          |

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## Outline



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### Absolute Maximum Ratings (Ta = 25°C)

| Item                 | Symbol | Value    | Unit |
|----------------------|--------|----------|------|
| Reverse voltage      | VR     | 32       | V    |
| Junction temperature | Tj     | 125      | °C   |
| Storage temperature  | Tstg   | -55~+125 | °C   |

### Electrical Characteristics (Ta = 25°C)

| Item              | Symbol | Min  | Typ | Max  | Unit | Test Condition       |
|-------------------|--------|------|-----|------|------|----------------------|
| Reverse current   | IR1    | ~    | ~   | 10   | nA   | VR = 30V             |
|                   | IR2    | ~    | ~   | 100  |      | VR = 30V, Ta = 60 °C |
| Capacitance       | C2     | 10.5 | ~   | 16.0 | pF   | VR = 2V, f = 1 MHz   |
|                   | C10    | 3.3  | ~   | 5.7  |      | VR = 10V, f = 1 MHz  |
| Capacitance ratio | n      | 2.5  | ~   | 3.4  | ~    | C2/ C10              |
| Series resistance | rs     | ~    | ~   | 1.2  | Ω    | VR = 3V, f = 50 MHz  |

Main Characteristic

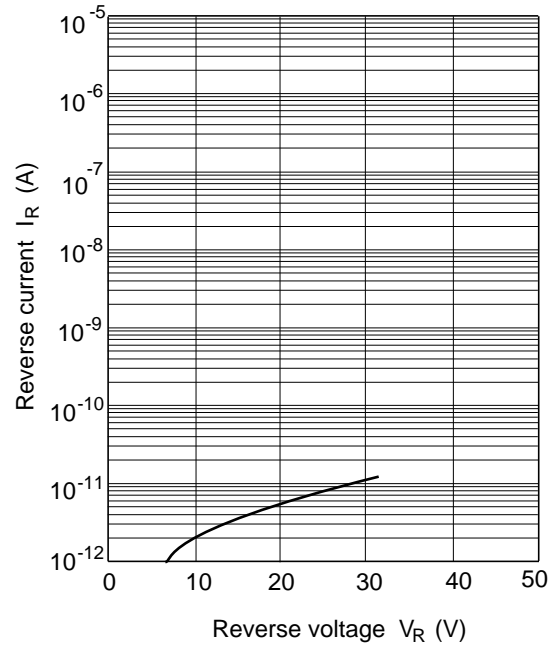


Fig.1 Reverse current Vs. Reverse voltage

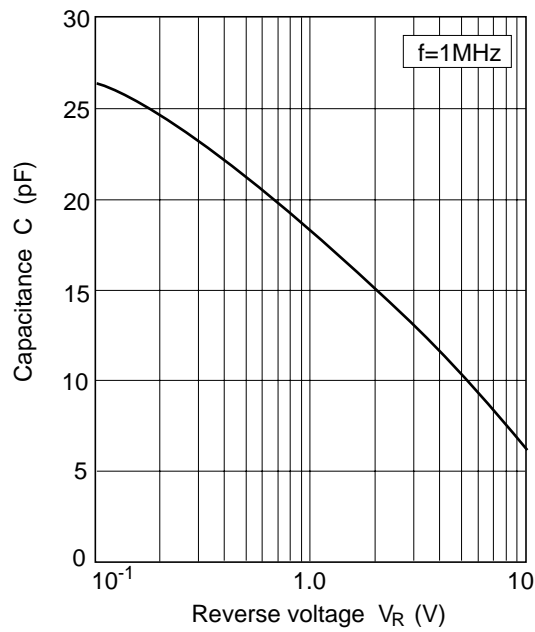


Fig.2 Capacitance Vs. Reverse voltage

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## Package Dimensions

Unit : mm

