

HVU131

Silicon Epitaxial Planar Pin Diode for Antenna Switching

HITACHI

 Rev. 1
 Jun. 1995

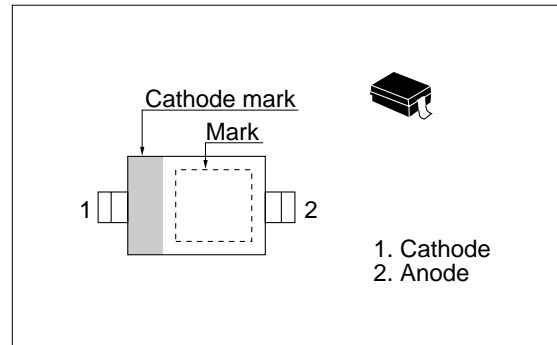
Features

- Low capacitance. ($C=0.8\text{pF max}$)
- Low forward resistance. ($r_f=1.0\Omega \text{ max}$)
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVU131 | P1 | URP |

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Item | Symbol | Value | Unit |
|----------------------|-----------|-------------|------------------|
| Peak reverse voltage | V_{RM} | 65 | V |
| Reverse voltage | V_R | 60 | V |
| Forward current | I_F | 100 | mA |
| Power dissipation | P_d | 150 | mW |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------|--------|-----|-----|-----|---------------|---|
| Forward voltage | V_F | — | — | 1.0 | V | $I_F = 10 \text{ mA}$ |
| Reverse current | I_R | — | — | 0.1 | μA | $V_R = 60 \text{ V}$ |
| Capacitance | C | — | — | 0.8 | pF | $V_R = 1 \text{ V}$, $f = 1 \text{ MHz}$ |
| Forward resistance | r_f | 3.5 | — | 1.0 | Ω | $I_F = 10 \text{ mA}$, $f = 100 \text{ MHz}$ |

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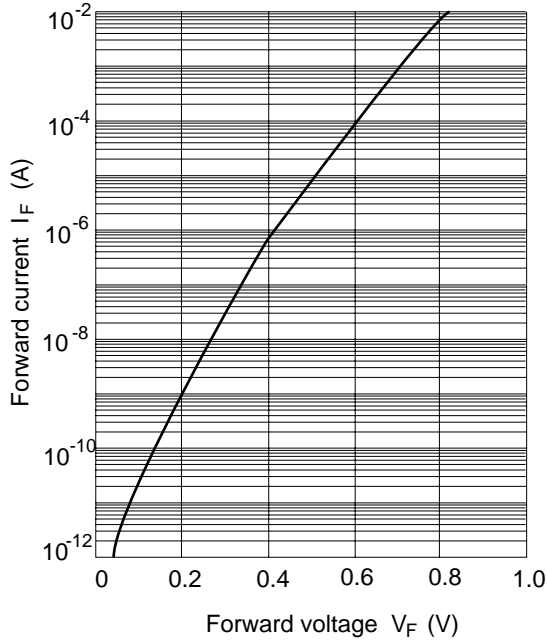


Fig.1 Forward current Vs. Forward voltage

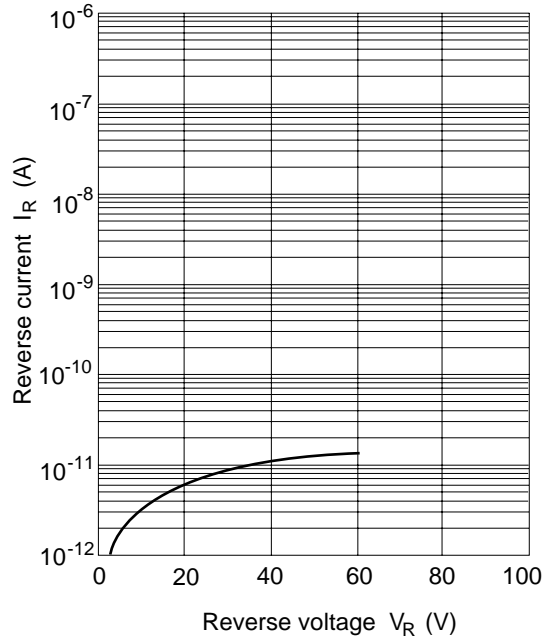


Fig.2 Reverse current Vs. Reverse voltage

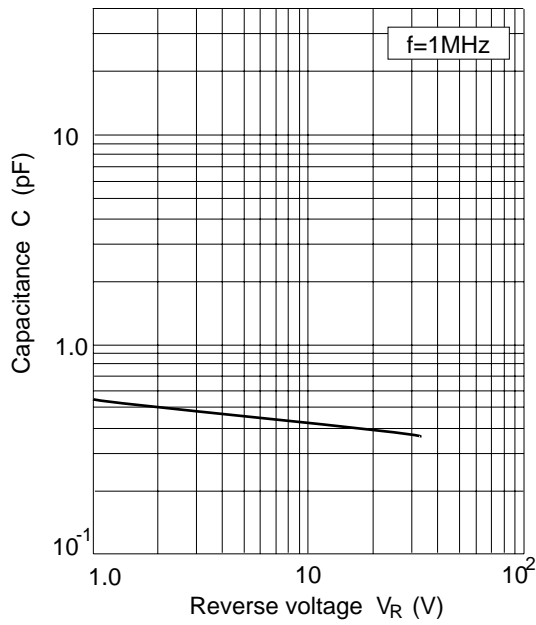


Fig.3 Capacitance Vs. Reverse voltage

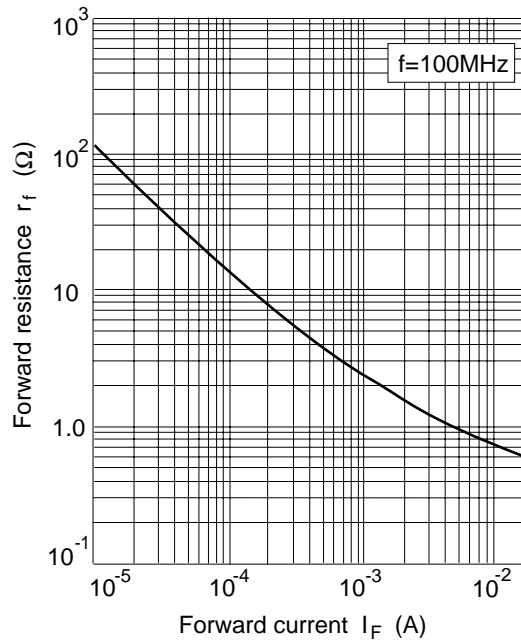
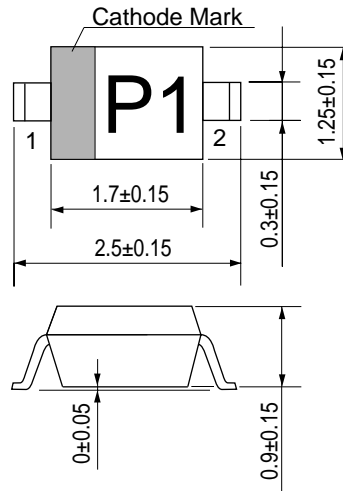


Fig.4 Forward resistance Vs. Forward current

Package Dimensions

Unit: mm



1 Cathode
2 Anode

| | |
|--------------|-------|
| HITACHI Code | URP |
| JEDEC Code | — |
| EIAJ Code | — |
| Weight (g) | 0.004 |