

HVD141

Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G0427-0100
(Previous: ADE-208-1087)
Rev.1.00
Dec 07, 2004

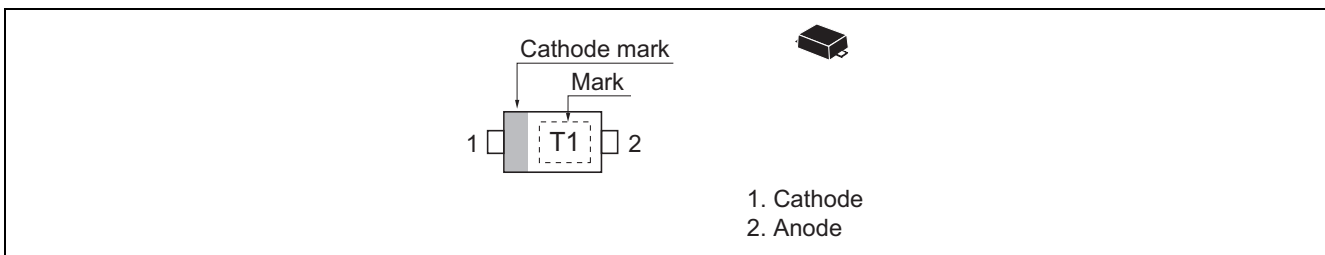
Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ($C = 0.82 \text{ pF max}$)
- Low forward resistance. ($r_f = 0.8 \Omega \text{ max}$)
- Super small Flat Lead Package (SFP) is suitable for surface mount design.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVD141 | T1 | SFP |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage | V_R | 30 | V |
| Forward current | I_F | 100 | mA |
| Power dissipation | P_d | 150 | mW |
| 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_R | — | — | 100 | nA | $V_R = 30\text{ V}$ |
| Forward voltage | V_F | — | — | 1.0 | V | $I_F = 10\text{ mA}$ |
| Capacitance | C | — | — | 0.82 | pF | $V_R = 1\text{ V}, f = 1\text{ MHz}$ |
| Forward resistance | r_f | — | — | 0.8 | Ω | $I_F = 10\text{ mA}, f = 100\text{ MHz}$ |

Note: 1. Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

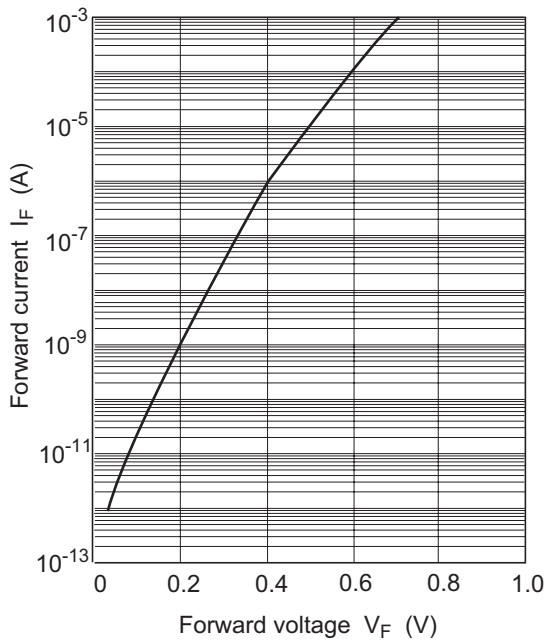


Fig.1 Forward current vs. Forward voltage

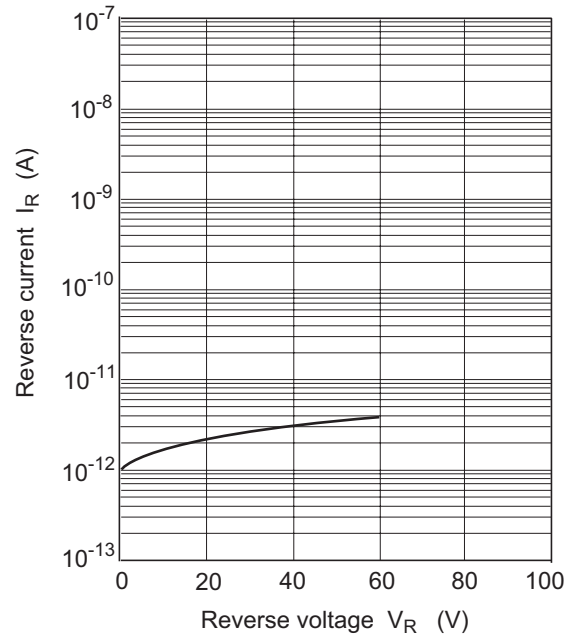


Fig.2 Reverse current vs. Reverse voltage

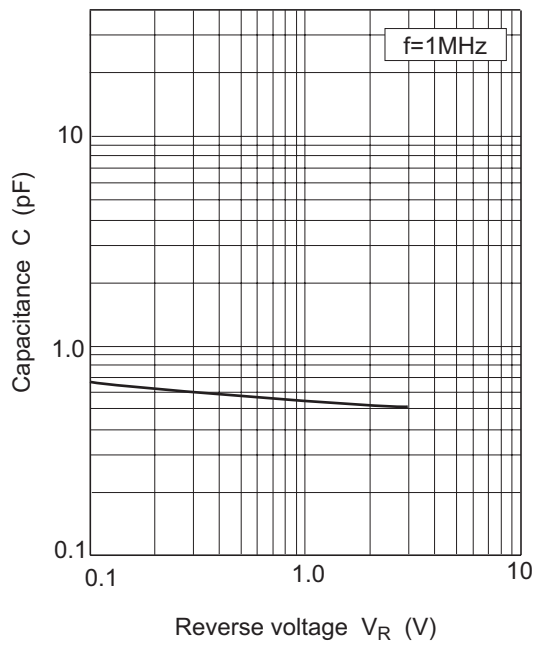


Fig.3 Capacitance vs. Reverse voltage

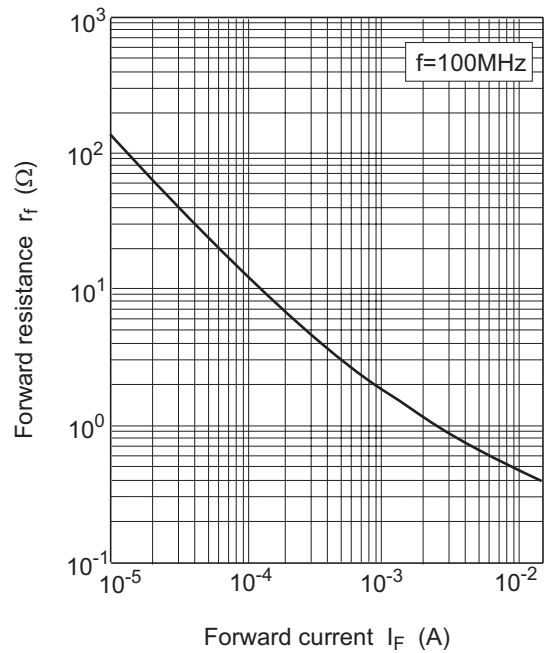


Fig.4 Forward resistance vs. Forward current

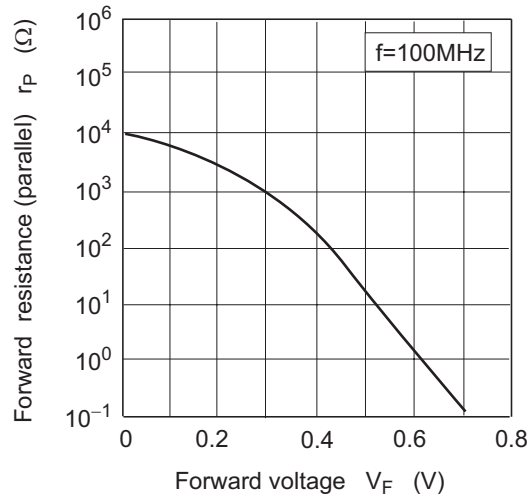
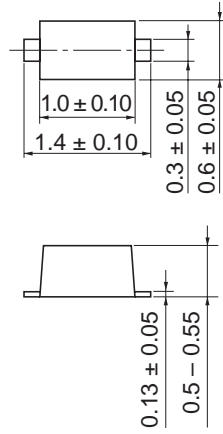


Fig.5 Forward resistance (parallel) vs. Forward voltage

Package Dimensions

As of January, 2003
Unit: mm



| | |
|------------------------|----------|
| Package Code | SFP |
| JEDEC | — |
| JEITA | — |
| Mass (reference value) | 0.0010 g |

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