

# HVB187YP

## Silicon Epitaxial Planar Pin Diode for High Frequency Attenuator

REJ03G0439-0100  
(Previous: ADE-208-1411)  
Rev.1.00  
Dec 16, 2004

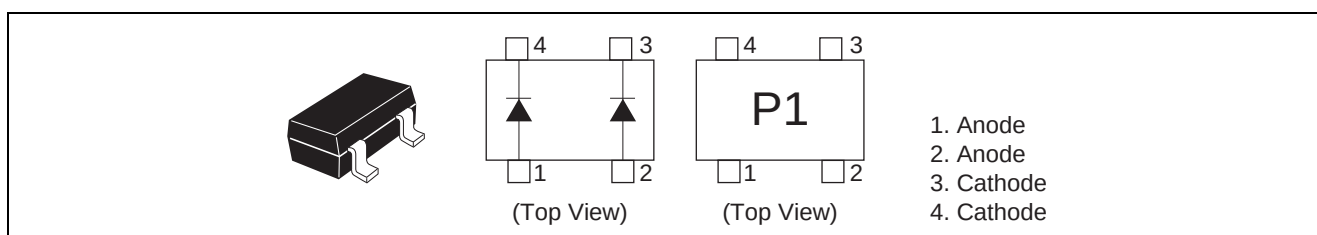
### Features

- Low forward resistance. ( $r_f = 5.5 \Omega$  max)
- CMPAK-4 package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVB187YP | P1         | CMPAK-4      |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                 | Symbol               | Value       | Unit |
|----------------------|----------------------|-------------|------|
| Reverse voltage      | $V_R$                | 60          | V    |
| Forward current      | $I_F$                | 50          | mA   |
| Power dissipation    | $P_d$ * <sup>1</sup> | 100         | mW   |
| Junction temperature | $T_j$                | 125         | °C   |
| Storage temperature  | $T_{stg}$            | -55 to +125 | °C   |

Note: 1. Per one device.

## Electrical Characteristics

(Ta = 25°C)

| Item                          | Symbol | Min | Typ | Max | Unit     | Test Condition                                                           |
|-------------------------------|--------|-----|-----|-----|----------|--------------------------------------------------------------------------|
| Reverse current               | $I_R$  | —   | —   | 100 | nA       | $V_R = 60$ V                                                             |
| Forward voltage               | $V_F$  | —   | —   | 1.0 | V        | $I_F = 10$ mA                                                            |
| Capacitance                   | C      | —   | —   | 2.4 | pF       | $V_R = 0$ V, $f = 1$ MHz                                                 |
| Forward resistance            | $r_f$  | 3.5 | —   | 5.5 | $\Omega$ | $I_F = 10$ mA, $f = 100$ MHz                                             |
| ESD-Capability * <sup>1</sup> | —      | 200 | —   | —   | V        | C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse. |

Note: 1. Failure criterion;  $I_R > 100$  nA at  $V_R = 60$  V

Main Characteristic

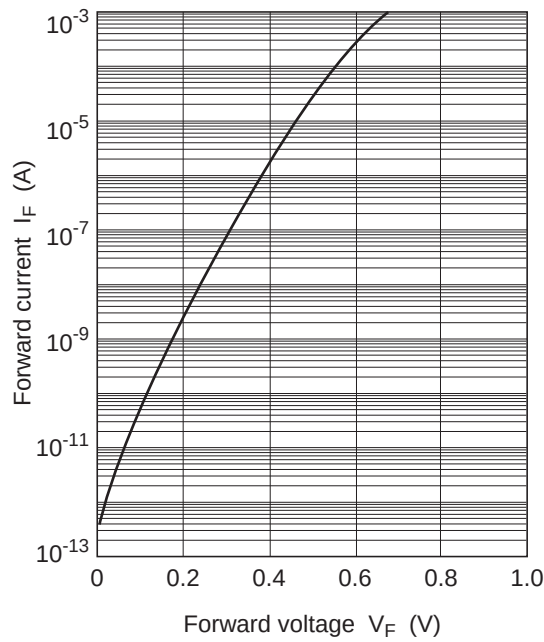


Fig.1 Forward current vs. Forward voltage

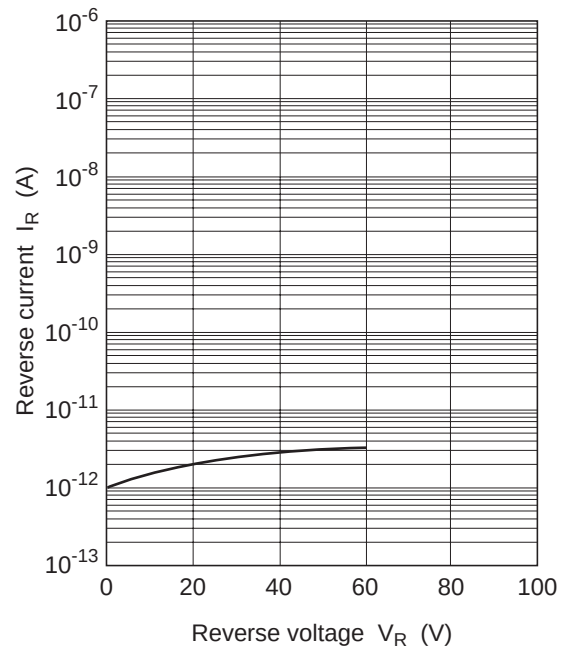


Fig.2 Reverse current vs. Reverse voltage

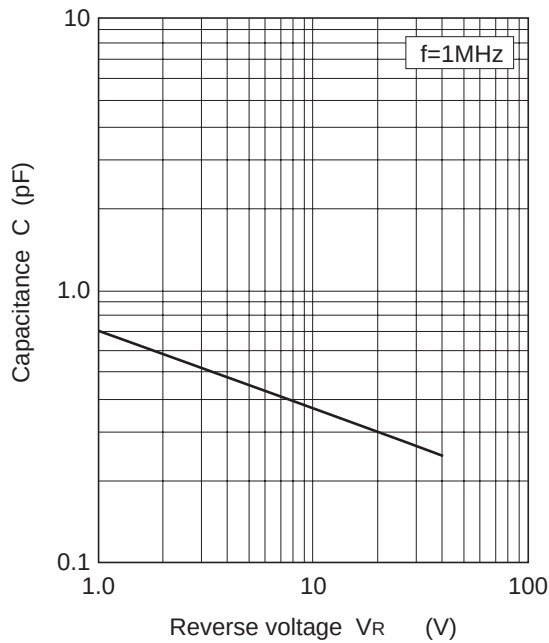


Fig.3 Capacitance vs. Reverse voltage

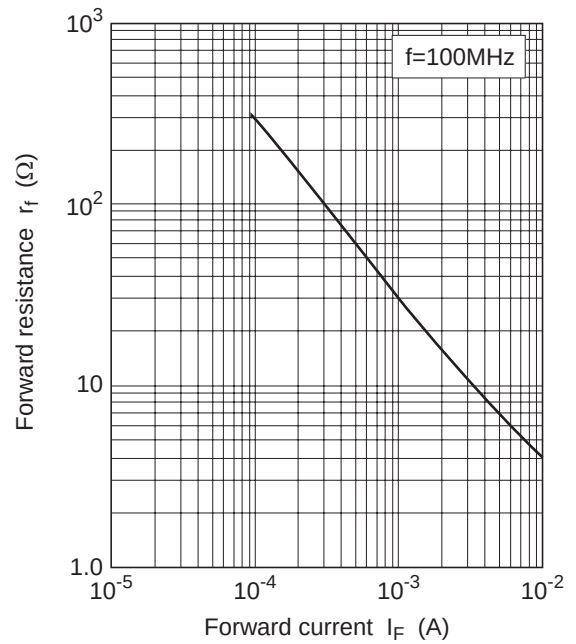
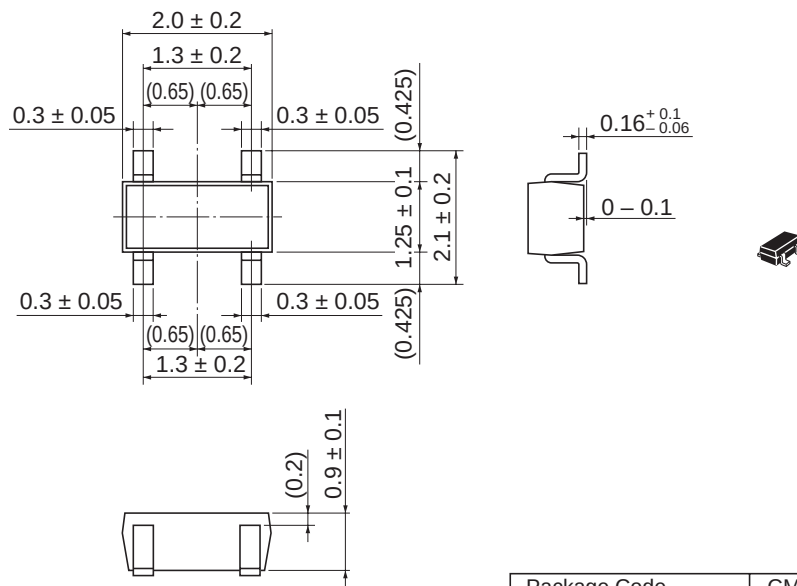


Fig.4 Forward resistance vs. Forward current

## Package Dimensions

As of January, 2003  
Unit: mm



|                        |          |
|------------------------|----------|
| Package Code           | CMPAK-4  |
| JEDEC                  | —        |
| JEITA                  | Conforms |
| Mass (reference value) | 0.006 g  |

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