

# HVM131SR

## Silicon Epitaxial Planar Pin Diode for Antenna Switching

# HITACHI

Rev. 1  
Oct. 1995

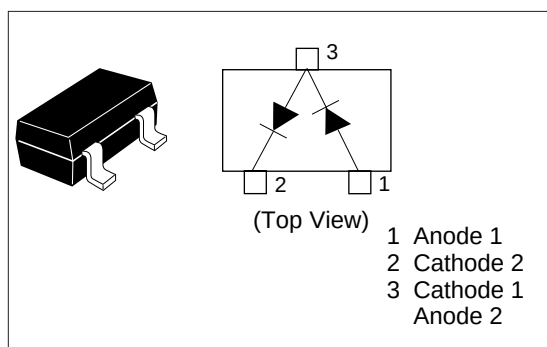
### Features

- Low capacitance. ( $C=0.8\text{pF}$  max)
- Low forward resistance. ( $r_f=1.0\Omega$  max)
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVM131SR | P6         | MPAK         |

### Outline



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

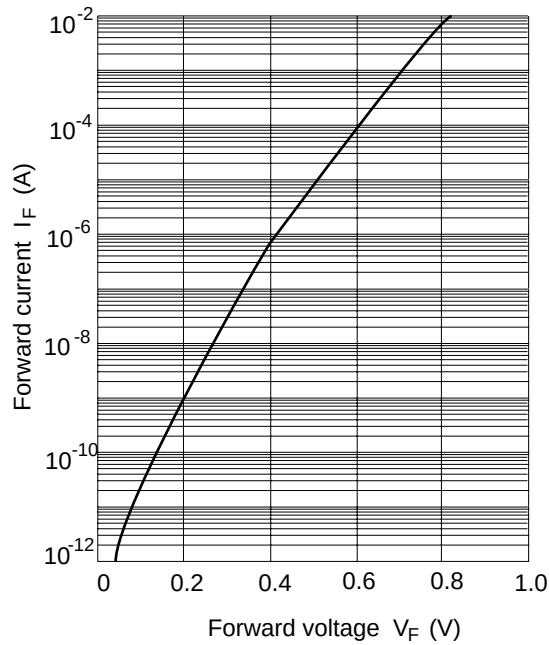
| Item                 | Symbol    | Value       | Unit             |
|----------------------|-----------|-------------|------------------|
| Peak reverse voltage | $V_{RM}$  | 65          | V                |
| Reverse voltage      | $V_R$     | 60          | V                |
| Forward current   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

\* Two device total

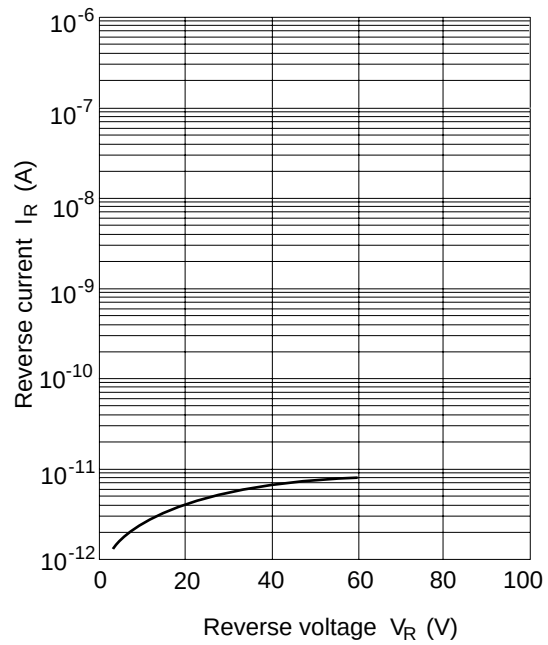
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ ) \*

| 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 | $\mu\text{A}$ | $V_R = 60\text{ V}$                         |
| Capacitance        | $C$    | —   | —   | 0.8 | pF            | $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$     |
| Forward resistance | $r_f$  | —   | —   | 1.0 | $\Omega$      | $I_F = 10\text{ mA}$ , $f = 100\text{ MHz}$ |

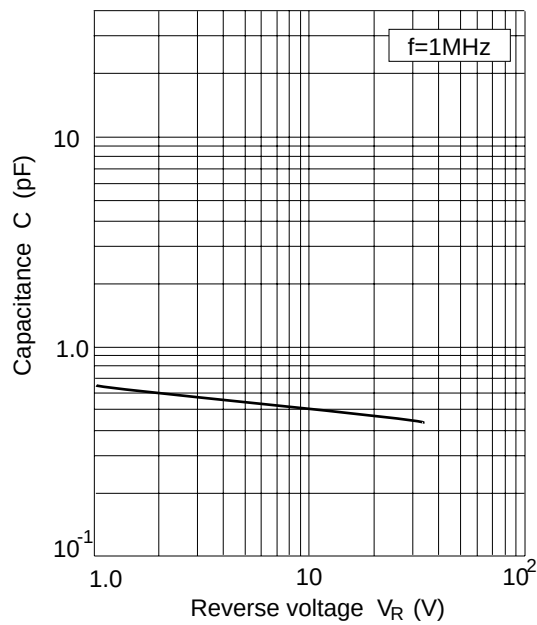
\* Per one device



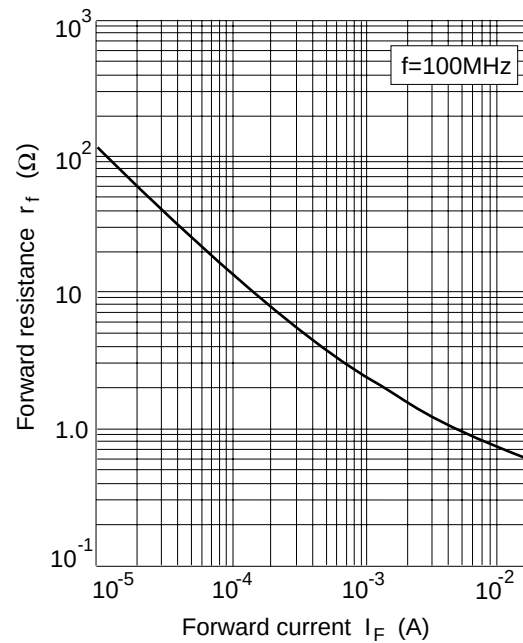
**Fig.1 Forward current Vs. Forward voltage**



**Fig.2 Reverse current Vs. Reverse voltage**



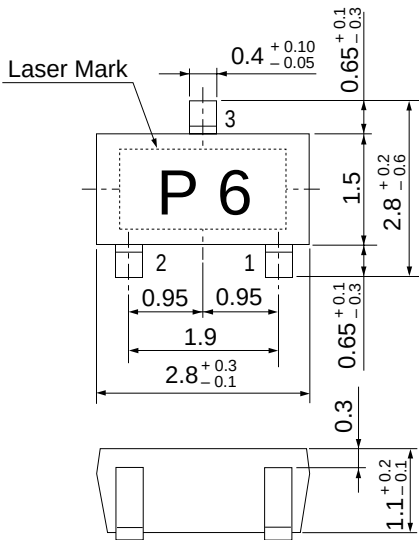
**Fig.3 Capacitance Vs. Reverse voltage**



**Fig.4 Forward resistance Vs. Forward current**

Package Dimensions

Unit: mm



- 1 Anode 1
- 2 Cathode 2
- 3 Cathode 1  
Anode 2

|              |         |
|--------------|---------|
| HITACHI Code | MPAK(1) |
| JEDEC Code   | —       |
| EIAJ Code    | SC-59A  |
| Weight (g)   | 0.011   |