

HVB14S

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

HITACHI

ADE-208-484(Z)

Rev 0

December 1996

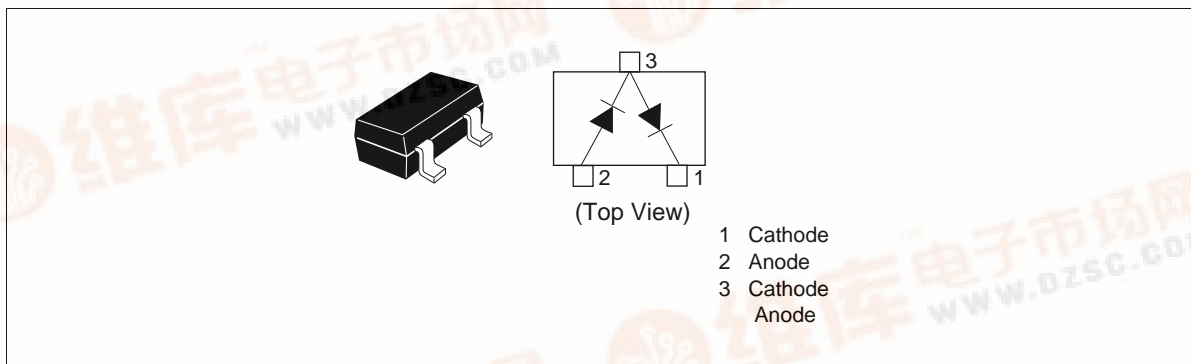
Features

- Low forward resistance. ($r_f = 7.0\Omega_{\max}$)
- Low capacitance. ($C = 0.25\text{pF typ}$)
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HVB14S | H6 | CMPAK |

Outline



HVB14S

Absolute Maximum Ratings (Ta = 25°C)

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

Note: 1. Two device total.

Electrical Characteristics (Ta = 25°C) *2

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------|--------|-----|------|-----|------|---|
| Forward voltage | V_F | Á | Á | 1.0 | V | $I_F = 50$ mA |
| Reverse current | I_R | Á | Á | 100 | nA | $V_R = 50$ V |
| Capacitance | C | Á | 0.25 | Á | pF | $V_R = 50$ V, $f = 1$ MHz |
| Forward resistance | r_f | Á | Á | 7 | Ω | $I_F = 10$ mA, $f = 100$ MHz |
| ESD-Capability *1 | Á | 200 | Á | Á | V | $C=200$ pF, Both forward and reverse direction 1 pulse |

Note: 1. Failure criterion ; $I_R \geq 200$ nA at $V_R = 50$ V

Note: 2. Per one device.

Main Characteristic

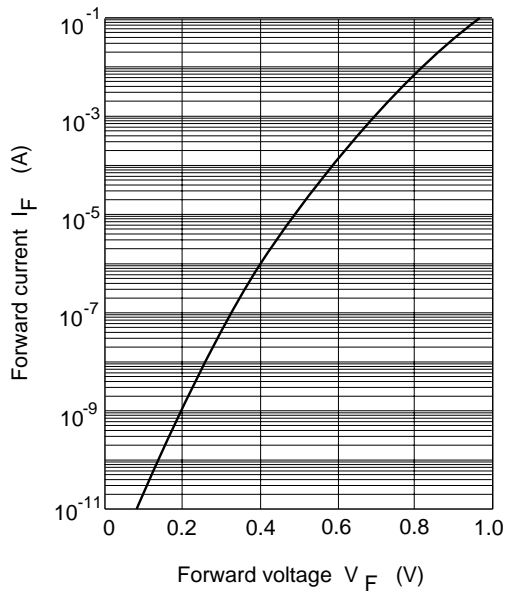


Fig.1 Forward current Vs. Forward voltage

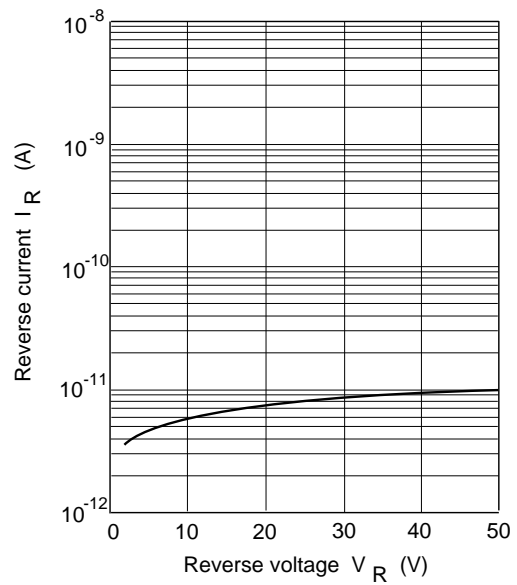


Fig.2 Reverse current Vs. Reverse voltage

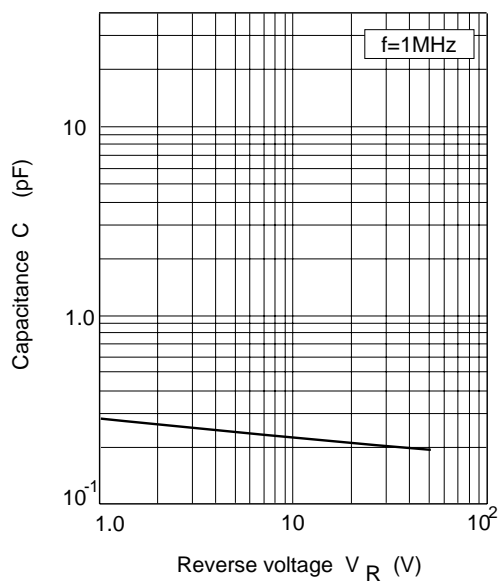


Fig.3 Capacitance Vs. Reverse voltage

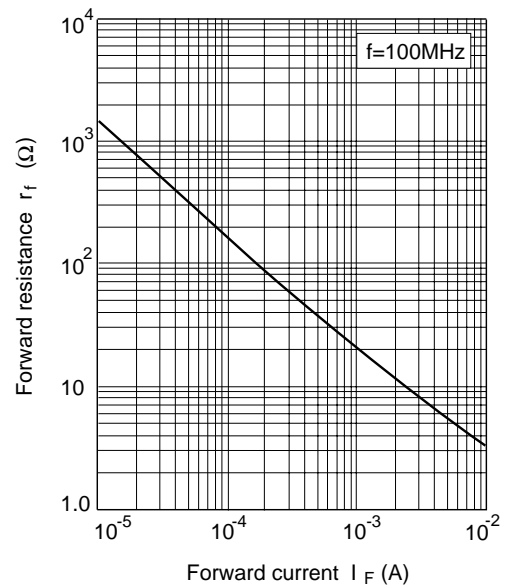
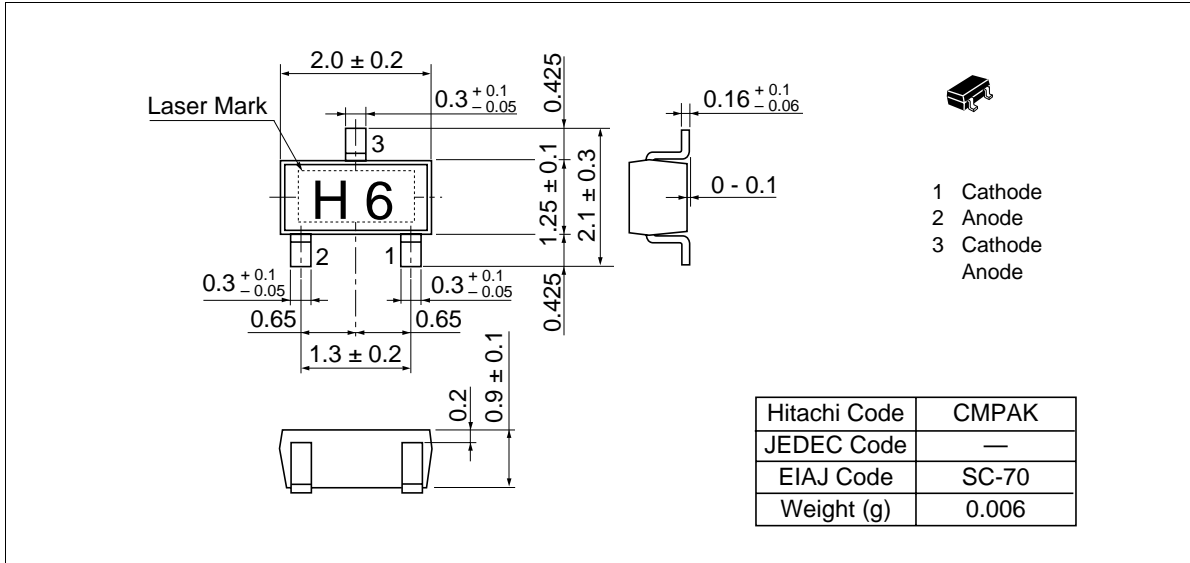


Fig.4 Forward resistance Vs. Forward current

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Package Dimensions

Unit : mm



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