
HSB83YP

Silicon Epitaxial Planar Diode for High Voltage Switching

HITACHI

ADE-208-843(Z)

Rev. 0
Mar. 2000

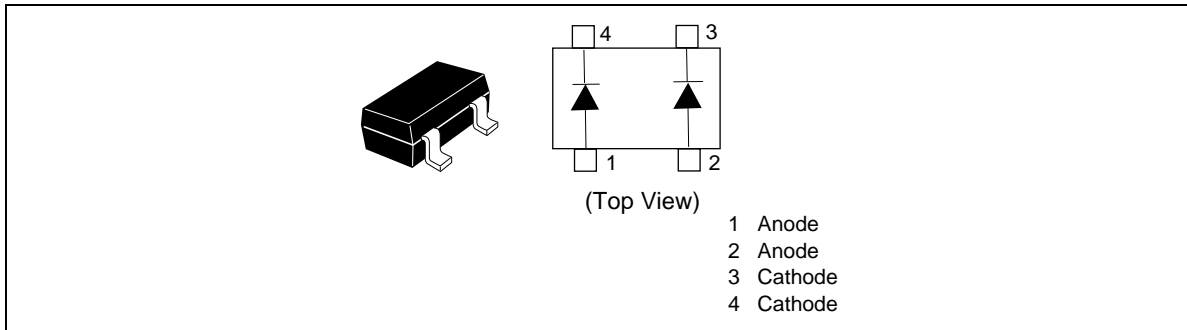
Features

- High reverse voltage. ($V_R=250V$)
- CMPAK-4 package which has two devices parallel connection, is suitable for high density surface mounting.

Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSB83YP | F7 | CMPAK-4 |

Outline



HSB83YP

Absolute Maximum Ratings*²

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|----------------|-------------|------|
| Peak reverse voltage | V_{RM} | 300 | V |
| Reverse voltage | V_R | 250 | V |
| Peak forward current | I_{FM} | 300 | mA |
| Non-Repetitive peak forward surge current | I_{FSM}^{*1} | 2 | A |
| Average rectified current | I_O | 100 | mA |
| Junction temperature | T_j | 125 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |

Note 1. Value at duration of 10msec.

Note 2. Two device total.

Electrical Characteristics*¹

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|-----------------------|----------|-----|-----|-----|---------------|---|
| Forward voltage | V_F | — | — | 1.2 | V | $I_F = 100 \text{ mA}$ |
| Reverse current | I_{R1} | — | — | 0.2 | μA | $V_R = 250\text{V}$ |
| | I_{R2} | — | — | 100 | | $V_R = 300\text{V}$ |
| Capacitance | C | — | — | 3.0 | pF | $V_R = 0\text{V}, f = 1 \text{ MHz}$ |
| Reverse recovery time | t_{rr} | — | — | 100 | ns | $I_F = I_R = 30 \text{ mA}, I_{rr} = 3\text{mA}, R_L = 100\Omega$ |

Note 1. Per one device.

Main Characteristic

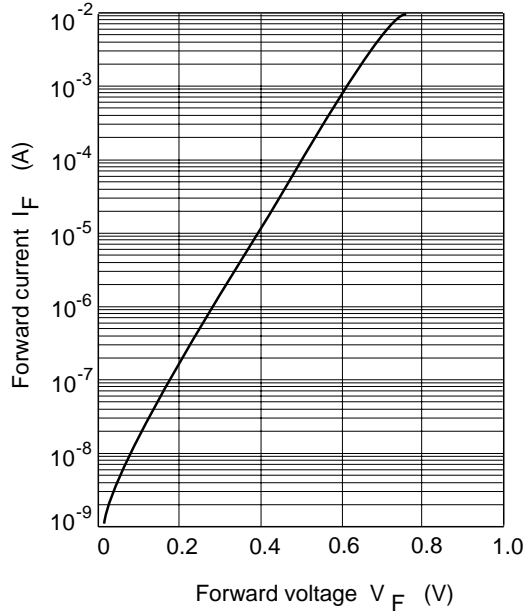


Fig.1 Forward current Vs. Forward voltage

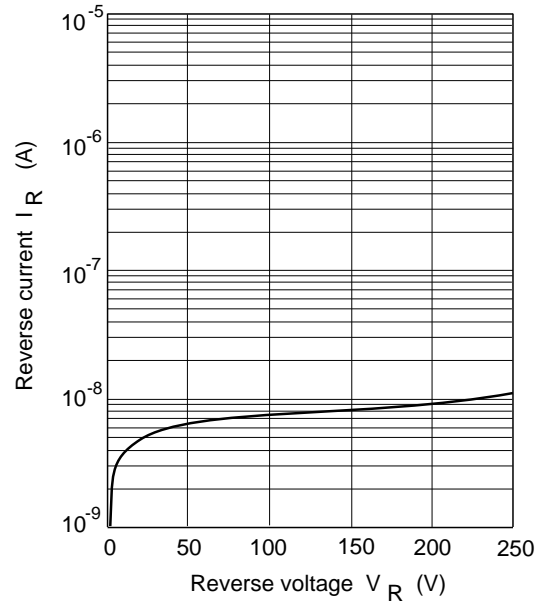


Fig.2 Reverse current Vs. Reverse voltage

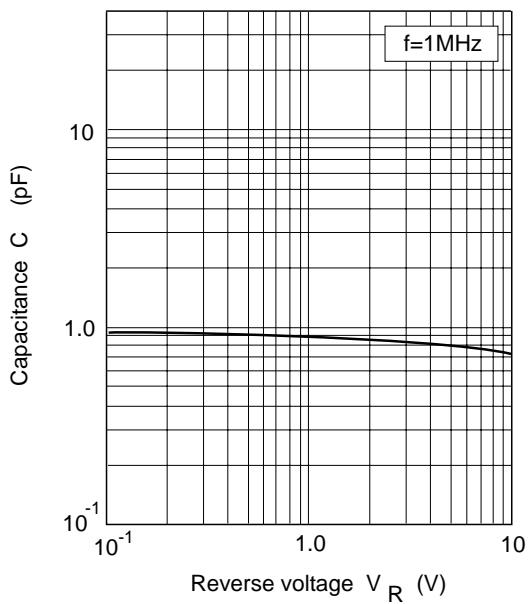
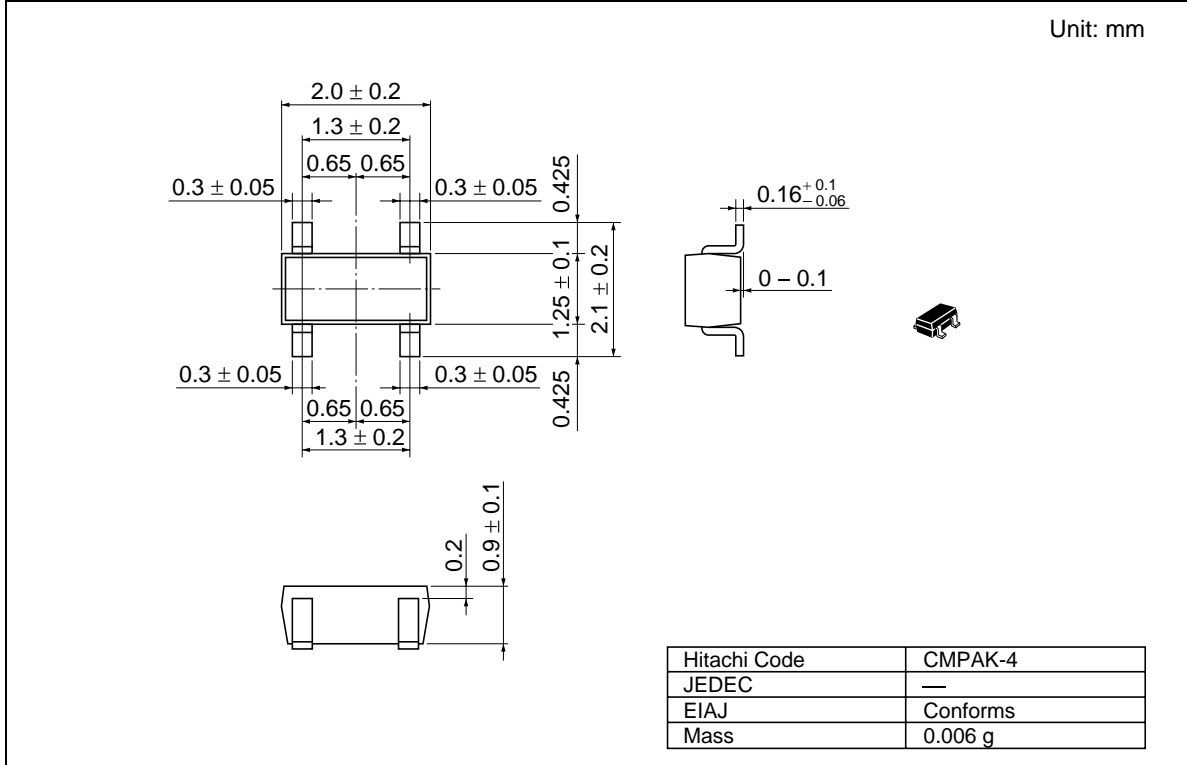


Fig.3 Capacitance Vs. Reverse voltage

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Package Dimensions



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