

# HSB88AS

Silicon Schottky Barrier Diode for High Speed Switching

# HITACHI

ADE-208-964 (Z)  
Rev.0  
Aug. 2000

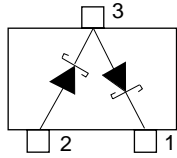
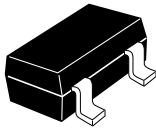
## Features

- Low reverse current, Low capacitance.
- CMPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSB88AS  | C1         | CMPAK        |

## Pin Arrangement



(Top View)

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

## Absolute Maximum Ratings (Ta = 25°C)

| Item                      | Symbol  | Value       | Unit |
|---------------------------|---------|-------------|------|
| Reverse voltage           | $V_R$   | 10          | V    |
| Average rectified current | $I_O^*$ | 15          | mA   |
| Junction temperature      | Tj      | 125         | °C   |
| Storage temperature       | Tstg    | -55 to +125 | °C   |

Note: Per one device.

## Electrical Characteristics (Ta = 25°C) \*1

| Item                         | Symbol       | Min   | Typ | Max   | Unit          | Test Condition   |
|------------------------------|--------------|-------|-----|-------|---------------|--|
| Forward voltage              | $V_{F1}$     | 0.350 | —   | 0.420 | V             | $I_F = 1 \text{ mA}$   |
|                              | $V_{F2}$     | 0.500 | —   | 0.580 |               | $I_F = 10 \text{ mA}$  |
| Reverse current              | $I_{R1}$     | —     | —   | 0.2   | $\mu\text{A}$ | $V_R = 2 \text{ V}$  |
|                              | $I_{R2}$     | —     | —   | 10    |               | $V_R = 10 \text{ V}$   |
| Capacitance                  | C            | —     | —   | 0.80  | pF            | $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$                                |
| Capacitance deviation        | $\Delta C$   | —     | —   | 0.10  | pF            | $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$                                |
| Forward voltage deviation    | $\Delta V_F$ | —     | —   | 10    | mV            | $I_F = 10 \text{ mA}$  |
| ESD-Capability <sup>*2</sup> | —            | 30    | —   | —     | V             | C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse. |

Notes: 1. Per one device.

2. Failure criterion ;  $I_R > 0.4 \mu\text{A}$  at  $V_R = 2\text{V}$

Main Characteristic

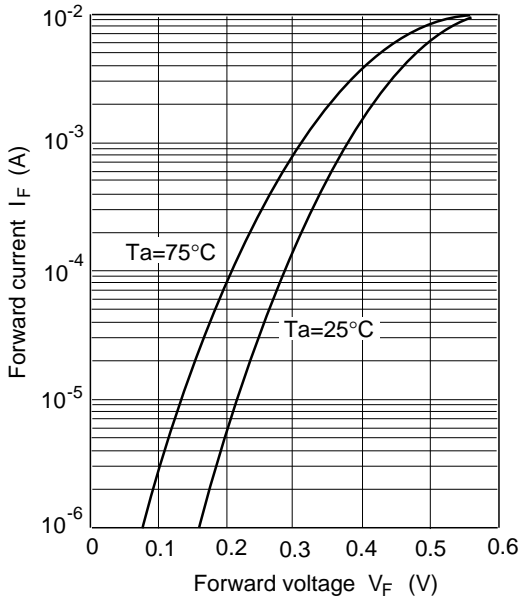


Fig.1 Forward current Vs. Forward voltage

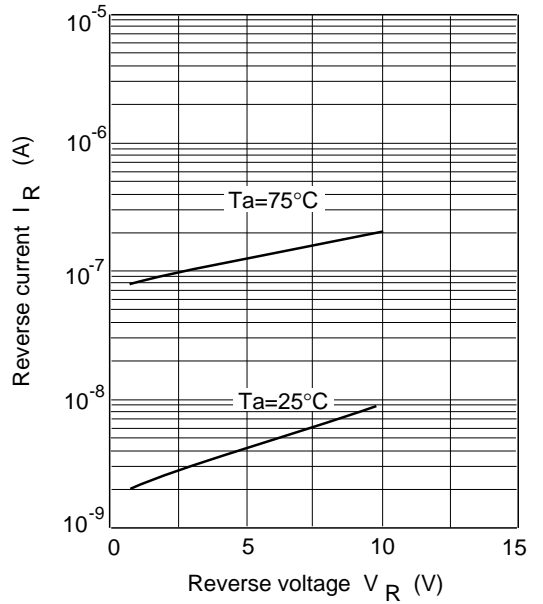


Fig.2 Reverse current Vs. Reverse voltage

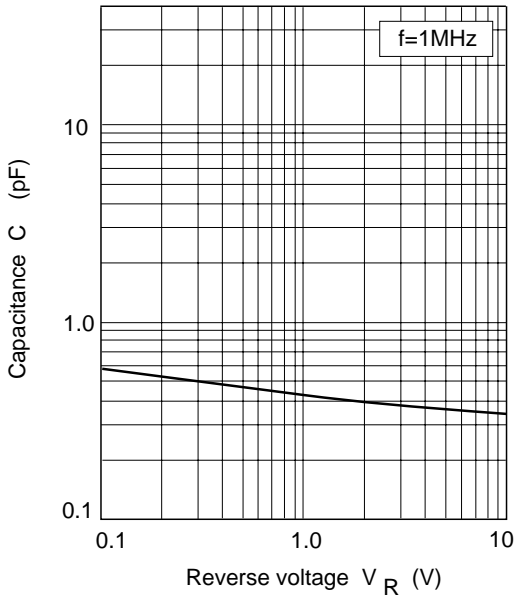
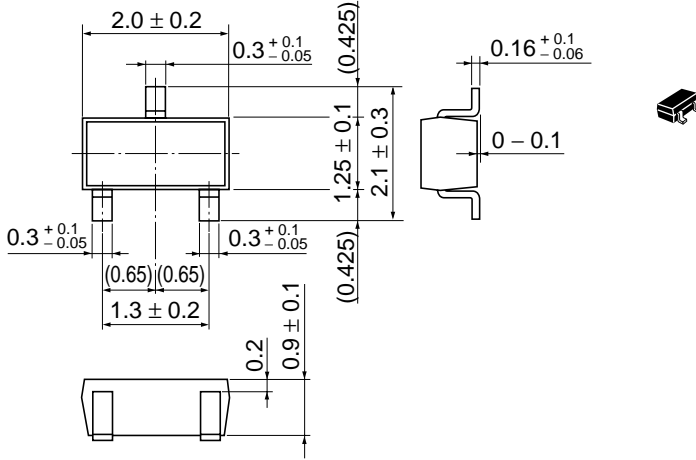


Fig.3 Capacitance Vs. Reverse voltage

## Package Dimensions

Unit: mm



|                        |          |
|------------------------|----------|
| Hitachi Code           | CMPAK    |
| JEDEC                  | —        |
| EIAJ                   | Conforms |
| Mass (reference value) | 0.006 g  |

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