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# 1SS88

Silicon Schottky Barrier Diode for CATV Balanced Mixer

# HITACHI

ADE-208-187A (Z)

Rev. 1  
Oct. 2000

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## Features

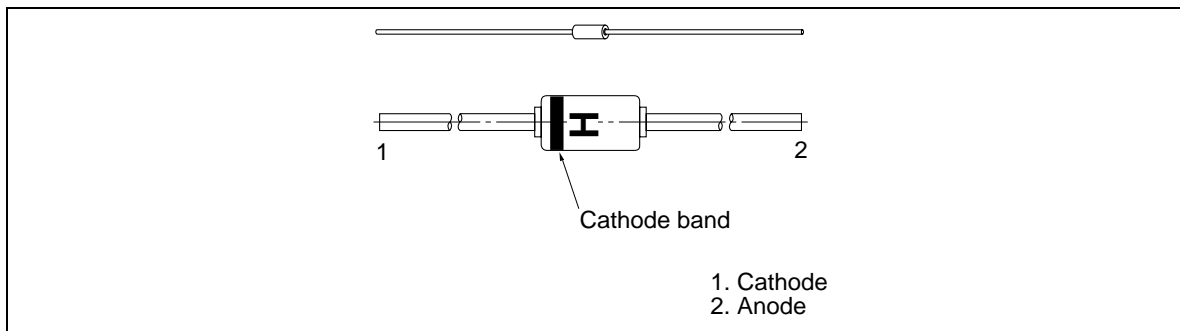
- Low capacitance. ( $C = 0.97$  pF max)
- High reliability with glass seal.

## Ordering Information

| Type No. | Cathode band | Mark | Package Code |
|----------|--------------|------|--------------|
| 1SS88    | White        | H    | DO-35        |

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## Outline



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# 1SS88

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## Absolute Maximum Ratings

(Ta = 25°C)

| Item                    | Symbol   | Value       | Unit |
|-------------------------|----------|-------------|------|
| Reverse voltage         | $V_R$    | 10          | V    |
| Peak forward current    | $I_{FM}$ | 35          | mA   |
| Average forward current | $I_O$    | 15          | mA   |
| Power dissipation       | Pd       | 150         | mW   |
| Junction temperature    | Tj       | 100         | °C   |
| Storage temperature     | Tstg     | -55 to +100 | °C   |

## Electrical Characteristics

(Ta = 25°C)

| Item                      | Symbol          | Min | Typ | Max  | Unit          | Test Condition   |
|---------------------------|-----------------|-----|-----|------|---------------|--|
| Forward voltage           | $V_{F1}$        | 365 | —   | 430  | mV            | $I_F = 1 \text{ mA}$   |
|                           | $V_{F2}$        | 520 | —   | 600  |               | $I_F = 10 \text{ mA}$  |
| Reverse current           | $I_{R1}$        | —   | —   | 0.2  | $\mu\text{A}$ | $V_R = 2 \text{ V}$  |
|                           | $I_{R2}$        | —   | —   | 10   |               | $V_R = 10 \text{ V}$   |
| Capacitance               | C               | —   | —   | 0.97 | pF            | $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$                                |
| Capacitance deviation     | $\Delta C$      | —   | —   | 0.1  | pF            | $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$                                |
| Forward voltage deviation | $\Delta V_{F1}$ | —   | —   | 10   | mV            | $I_F = 2.5 \text{ mA}$   |
|                           | $\Delta V_{F2}$ | —   | —   | 10   |               | $I_F = 10 \text{ mA}$  |
| ESD-Capability *1         | —               | 30  | —   | —    | V             | C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse. |

Notes: 1. Failure criterion ;  $I_R > 50 \mu\text{A}$  at  $V_R = 10 \text{ V}$

2. Each group shall unify a multiple of 4 diodes

Main Characteristic

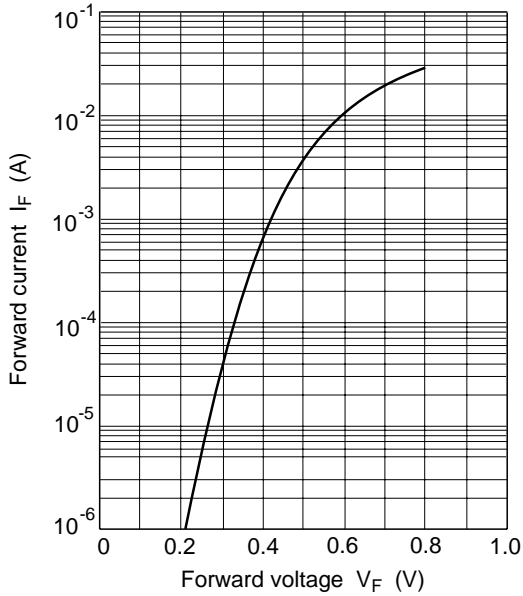


Fig.1 Forward current Vs. Forward voltage

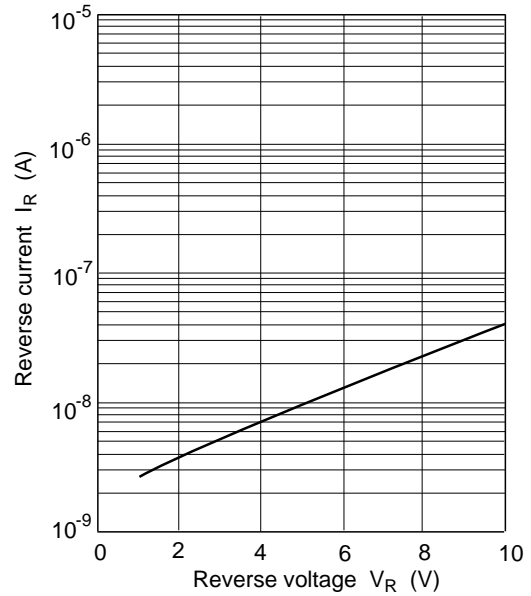


Fig.2 Reverse current Vs. Reverse voltage

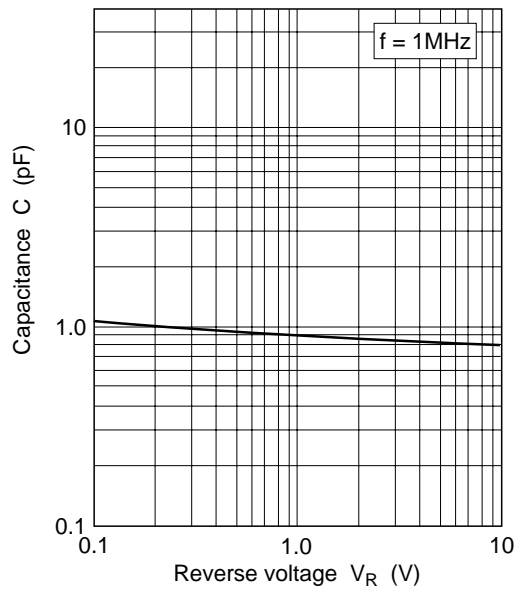


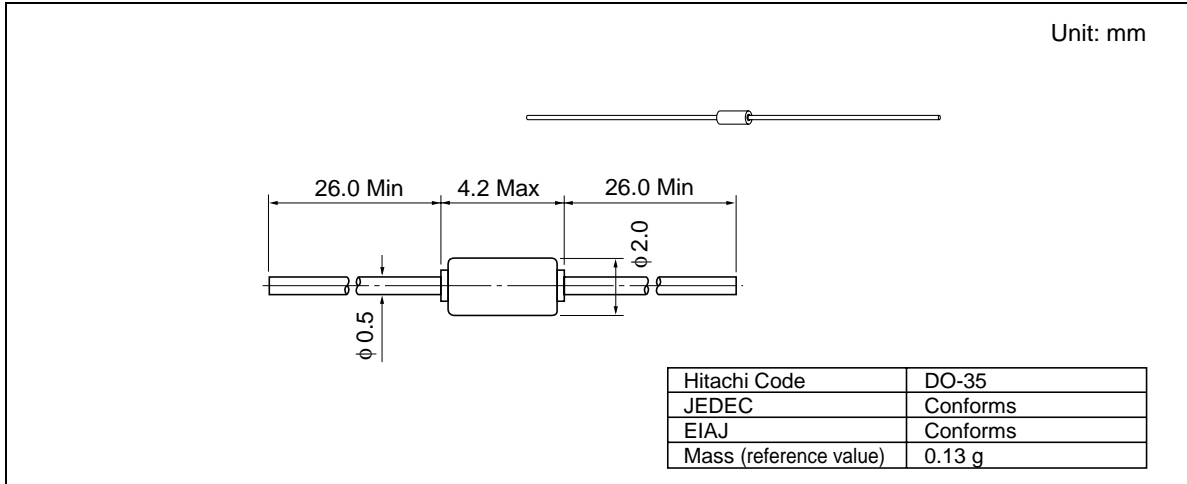
Fig.3 Capacitance Vs. Reverse voltage

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# 1SS88

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## Package Dimensions



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