

## HSM88ASR

### Silicon Schottky Barrier Diode for Balanced Mixer

REJ03G0136-0500Z  
(Previous: ADE-208-047D)  
Rev.5.00  
Nov.06.2003

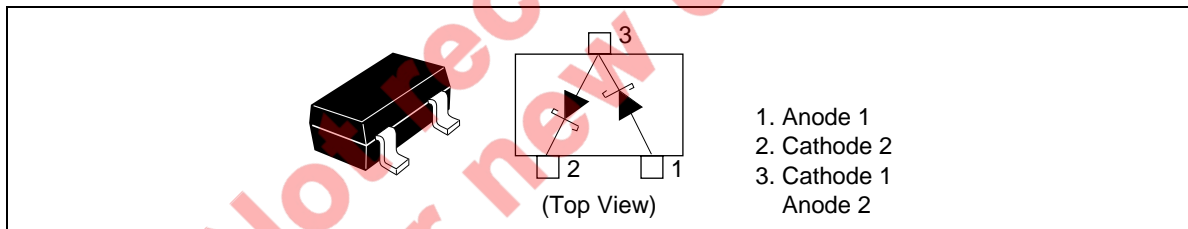
#### Features

- Proof against high voltage.
- MPAK package is suitable for high density surface mounting and high speed assembly.

#### Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSM88ASR | C3         | MPAK         |

#### Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

| Item                      | Symbol     | Value       | Unit |
|---------------------------|------------|-------------|------|
| Reverse voltage           | $V_R$      | 10          | V    |
| Average rectified current | $I_O^{*1}$ | 15          | mA   |
| Junction temperature      | $T_j$      | 125         | °C   |
| Storage temperature       | $T_{stg}$  | -55 to +125 | °C   |

Note: 1. Per one device

**Electrical Characteristics \*1**

(Ta = 25°C)

| Item                      | Symbol       | Min  | Typ | Max  | Unit          | Test Condition   |
|---------------------------|--------------|------|-----|------|---------------|--|
| Forward voltage           | $V_{F1}$     | 0.35 | —   | 0.42 | V             | $I_F = 1 \text{ mA}$   |
|                           | $V_{F2}$     | 0.50 | —   | 0.58 |               | $I_F = 10 \text{ mA}$  |
| Reverse current           | $I_{R1}$     | —    | —   | 0.2  | $\mu\text{A}$ | $V_R = 2 \text{ V}$  |
|                           | $I_{R2}$     | —    | —   | 10   |               | $V_R = 10 \text{ V}$   |
| Capacitance               | C            | —    | —   | 0.85 | 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 *2         | —            | 30   | —   | —    | V             | C = 200 pF, R = 0 $\Omega$ , Both forward and reverse direction 1 pulse. |

Notes: 1. Per one device

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

### Main Characteristics

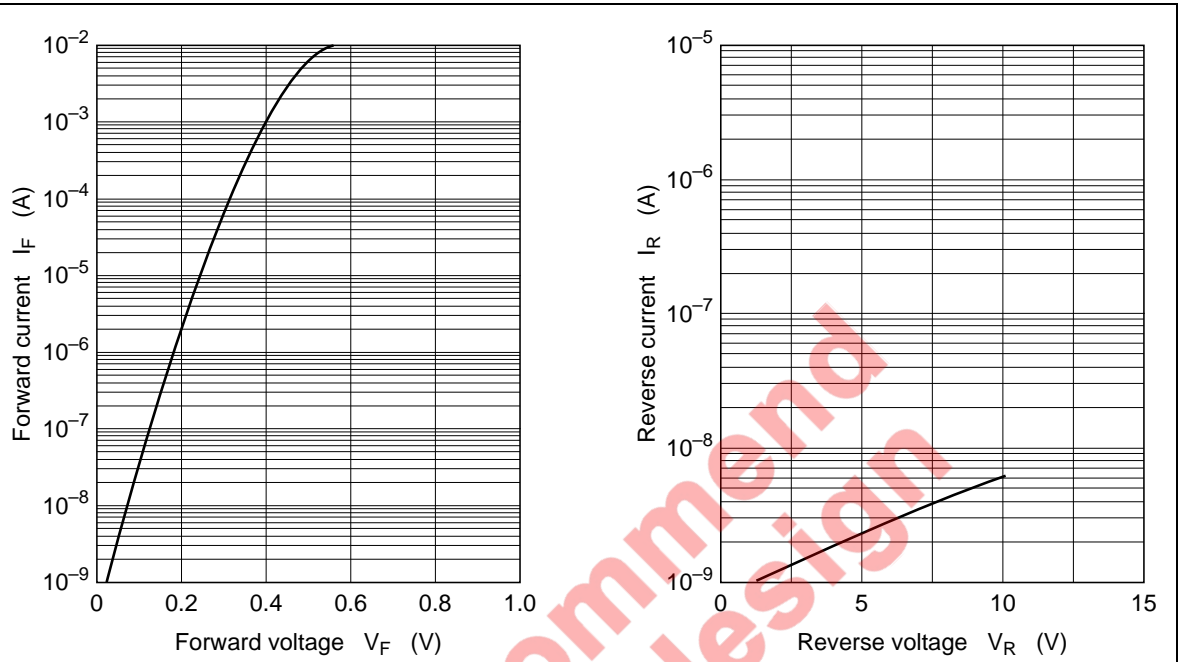


Fig.1 Forward current vs. Forward voltage

Fig.2 Reverse current vs. Reverse voltage

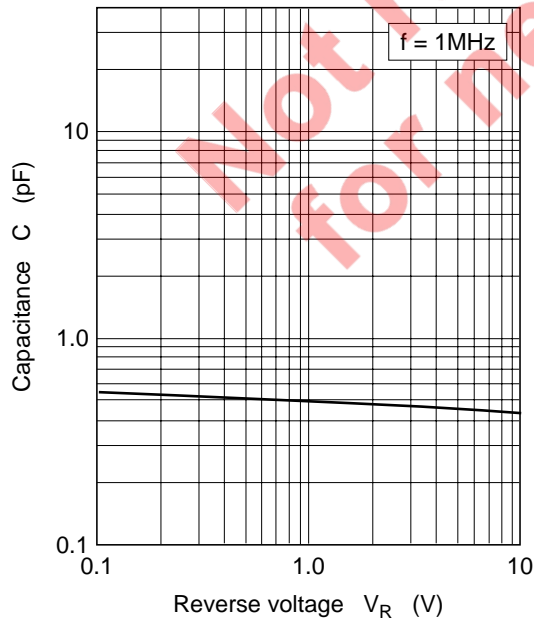
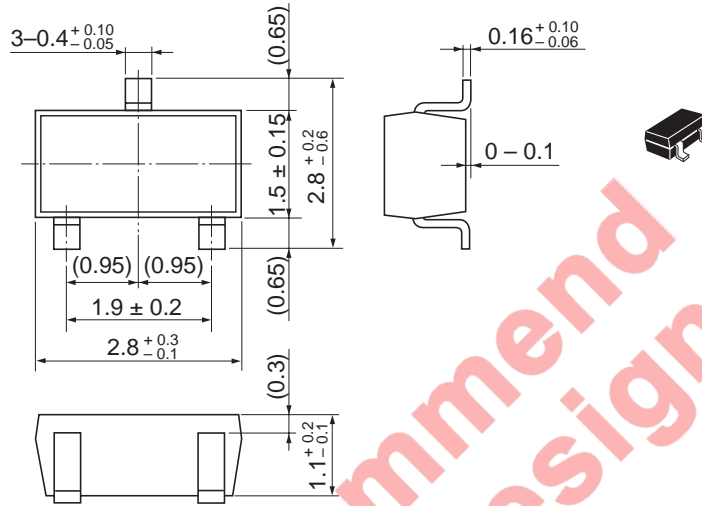


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



|                        |          |
|------------------------|----------|
| Package Code           | MPAK     |
| JEDEC                  | —        |
| JEITA                  | Conforms |
| Mass (reference value) | 0.011 g  |

Not recommend  
for new design

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