

## HSM88ASR

### Silicon Schottky Barrier Diode for Balanced Mixer

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

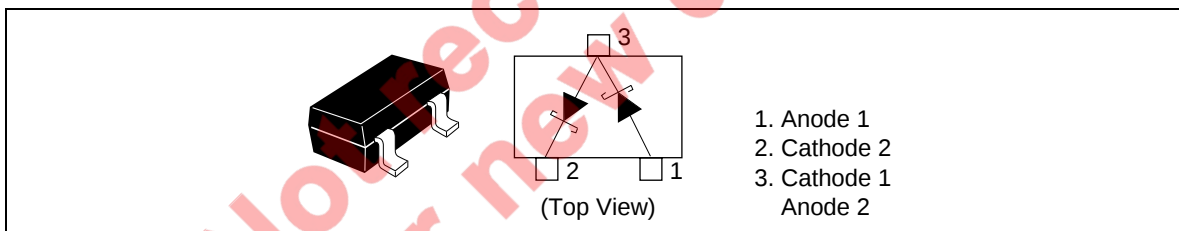
#### Features

- 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

(T<sub>a</sub> = 25°C)

| Item                      | Symbol                        | Value       | Unit |
|---------------------------|-------------------------------|-------------|------|
| Reverse voltage           | V <sub>R</sub>                | 10          | V    |
| Average rectified current | I <sub>O</sub> * <sup>1</sup> | 15          | mA   |
| Junction temperature      | T <sub>j</sub>                | 125         | °C   |
| Storage temperature       | T <sub>stg</sub>              | –55 to +125 | °C   |

Note: 1. Per one device

## Electrical Characteristics \*<sup>1</sup>

(T<sub>a</sub> = 25°C)

| Item                          | Symbol          | Min  | Typ | Max  | Unit | Test Condition                                                   |
|-------------------------------|-----------------|------|-----|------|------|------------------------------------------------------------------|
| Forward voltage               | V <sub>F1</sub> | 0.35 | —   | 0.42 | V    | I <sub>F</sub> = 1 mA                                            |
|                               | V <sub>F2</sub> | 0.50 | —   | 0.58 |      | I <sub>F</sub> = 10 mA                                           |
| Reverse current               | I <sub>R1</sub> | —    | —   | 0.2  | μA   | V <sub>R</sub> = 2 V                                             |
|                               | I <sub>R2</sub> | —    | —   | 10   |      | V <sub>R</sub> = 10 V                                            |
| Capacitance                   | C               | —    | —   | 0.85 | pF   | V <sub>R</sub> = 0 V, f = 1 MHz                                  |
| Capacitance deviation         | ΔC              | —    | —   | 0.10 | pF   | V <sub>R</sub> = 0 V, f = 1 MHz                                  |
| Forward voltage deviation     | ΔV <sub>F</sub> | —    | —   | 10   | mV   | I <sub>F</sub> = 10 mA                                           |
| ESD-Capability * <sup>2</sup> | —               | 30   | —   | —    | V    | C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 pulse. |

Notes: 1. Per one device

2. Failure criterion ; I<sub>R</sub> ≥ 0.4 μA at V<sub>R</sub> = 2 V

## Main Characteristics

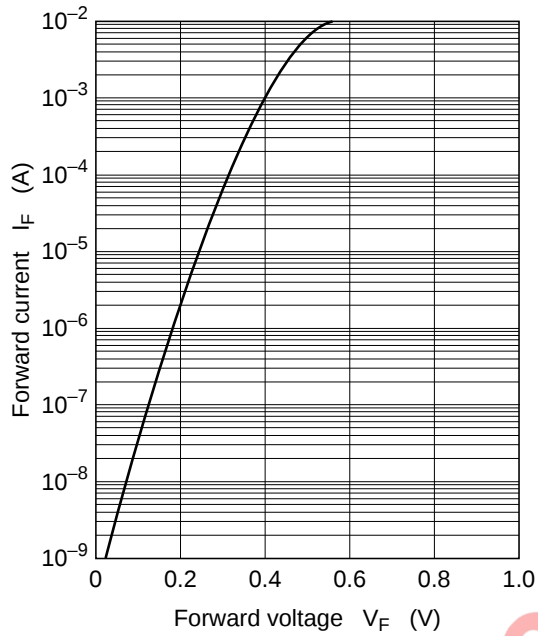


Fig.1 Forward current vs. Forward voltage

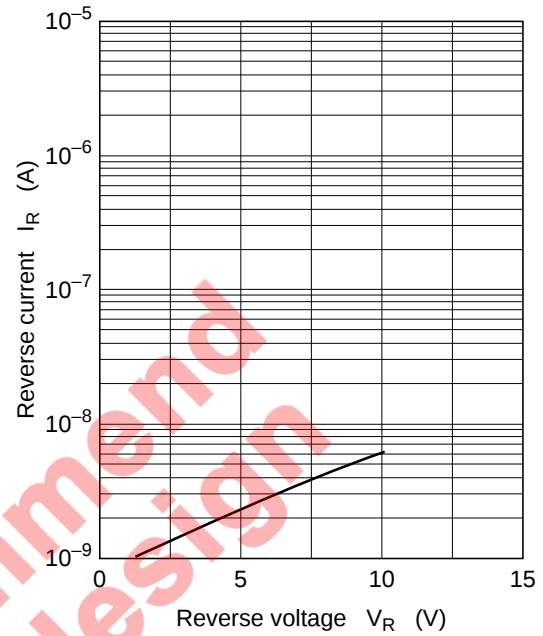


Fig.2 Reverse current vs. Reverse voltage

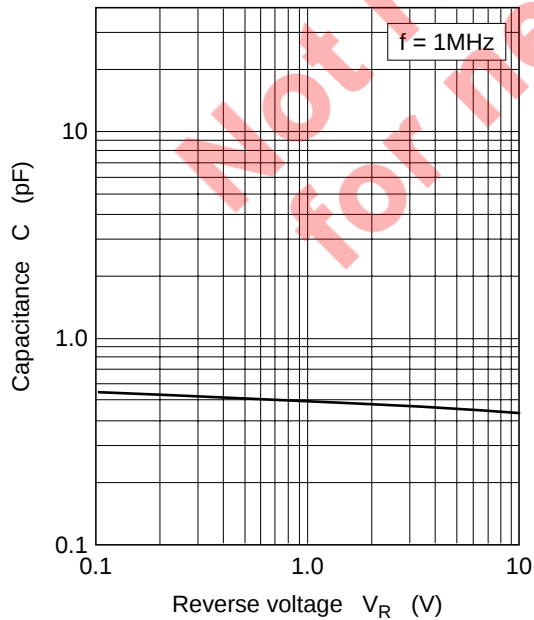
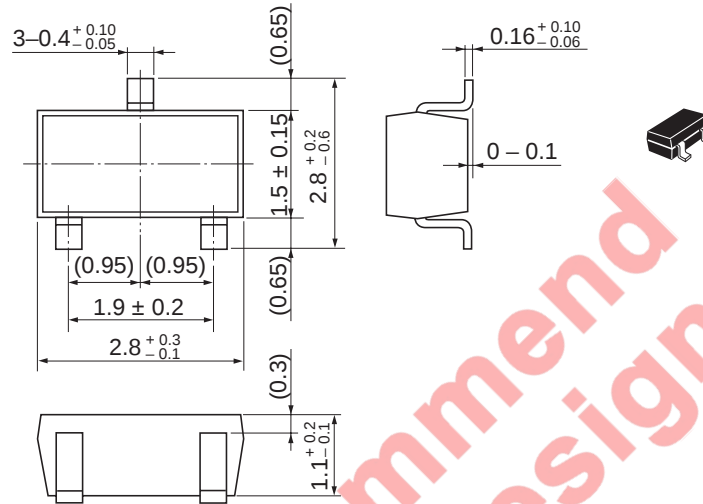


Fig.3 Capacitance vs. Reverse voltage

## Package Dimensions

As of January, 2003

Unit: mm



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

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