

# HSM276S

## Silicon Schottky Barrier Diode for Balanced Mixer

REJ03G0610-0700  
(Previous: ADE-208-039F)  
Rev.7.00  
Apr 26, 2005

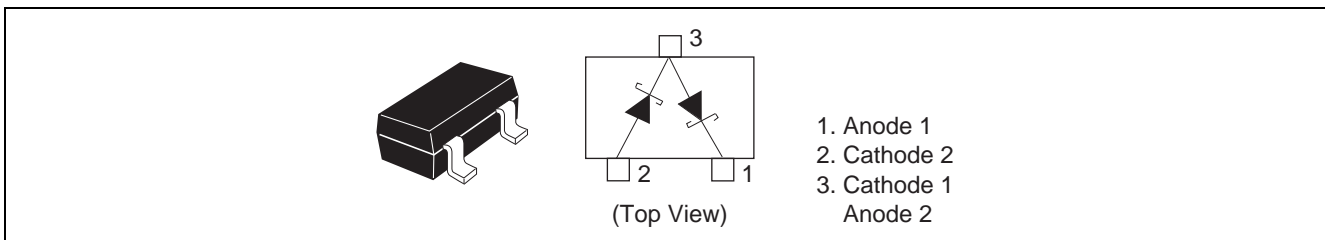
### Features

- High forward current, Low capacitance.
- HSM276S which is interconnected in series configuration is designed for balanced mixer use.
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

| Type No. | Laser Mark | Package Name | Package Code<br>(Previous Code) |
|----------|------------|--------------|---------------------------------|
| HSM276S  | C2         | MPAK         | PLSP0003ZC-A<br>(MPAK)          |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                      | Symbol     | Value       | Unit |
|---------------------------|------------|-------------|------|
| Reverse voltage           | $V_R$      | 3           | V    |
| Average rectified current | $I_O^{*1}$ | 30          | 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   |
|-----------------------|------------|-----|-----|------|---------------|--|
| Reverse voltage       | $V_R$      | 3.0 | —   | —    | V             | $I_R = 1 \text{ mA}$   |
| Reverse current       | $I_R$      | —   | —   | 50   | $\mu\text{A}$ | $V_R = 0.5 \text{ V}$  |
| Forward current       | $I_F$      | 35  | —   | —    | mA            | $V_F = 0.5 \text{ V}$  |
| Capacitance           | C          | —   | —   | 0.90 | pF            | $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$                                 |
| Capacitance deviation | $\Delta C$ | —   | —   | 0.10 | pF            | $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$                                 |
| 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 ;  $I_R \geq 100 \mu\text{A}$  at  $V_R = 0.5 \text{ V}$

Main Characteristic

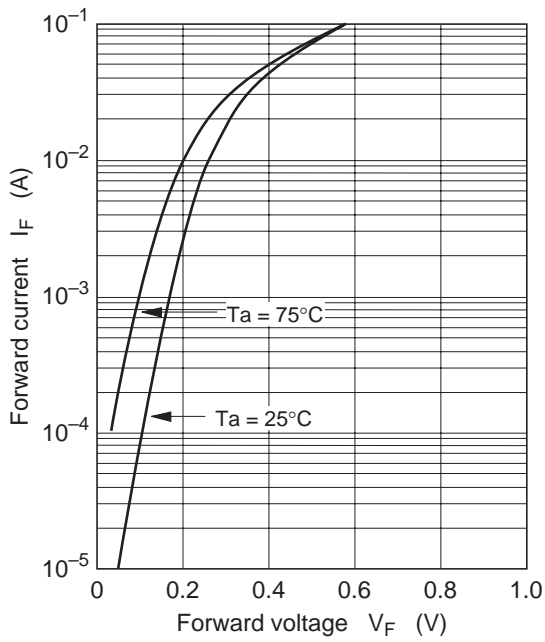


Fig.1 Forward current vs. Forward voltage

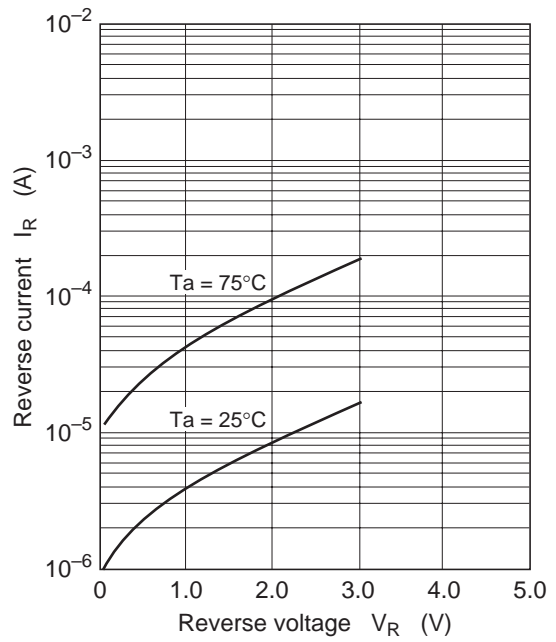


Fig.2 Reverse current vs. Reverse voltage

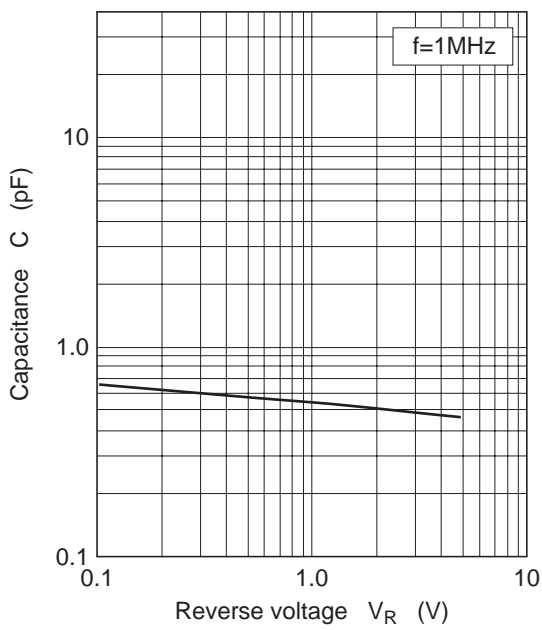
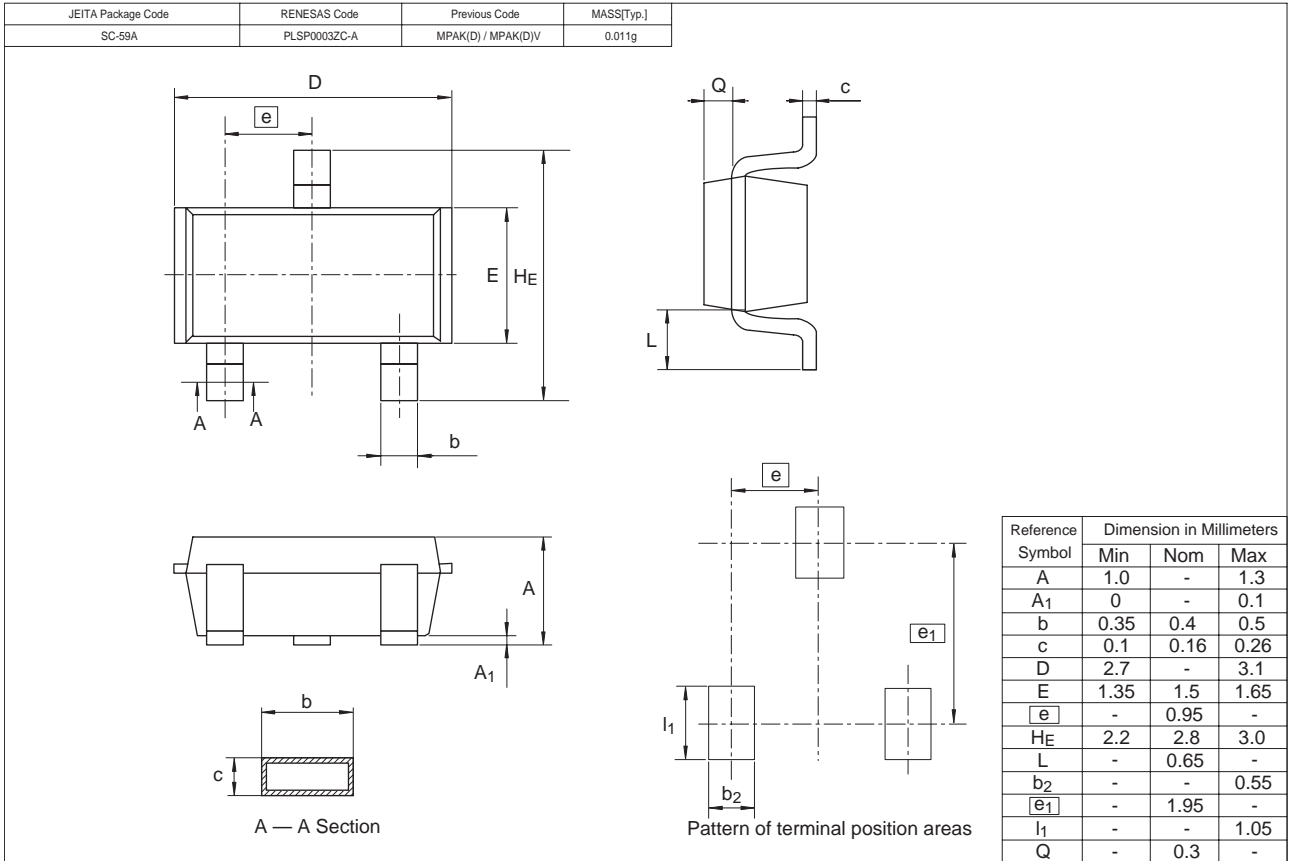


Fig.3 Capacitance vs. Reverse voltage

### Package Dimensions



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Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

#### **Renesas Technology (Shanghai) Co., Ltd.**

Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China  
Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

#### **Renesas Technology Singapore Pte. Ltd.**

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632  
Tel: <65> 6213-0200, Fax: <65> 6278-8001