

# 1SS286

Silicon Schottky Barrier Diode for Various Detector, High Speed Switching

REJ03G0142-0300

Rev.3.00

May 24, 2007

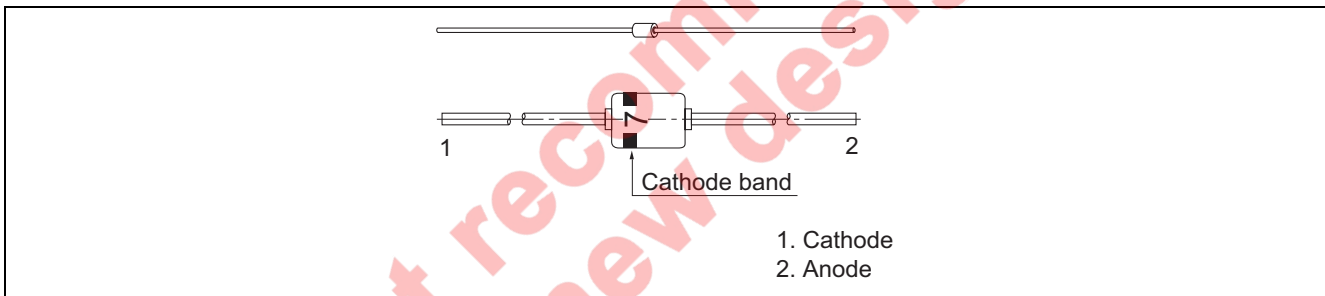
## Features

- Very low reverse current.
- Detection efficiency is very good.
- Small glass package (MHD) enables easy mounting and high reliability.

## Ordering Information

| Part No. | Cathode | Mark | Package Name | Package Code |
|----------|---------|------|--------------|--------------|
| 1SS286   | GREEN   | 7    | MHD          | GRZZ0002ZC-A |

## Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                 | Symbol    | Value       | Unit |
|----------------------|-----------|-------------|------|
| Reverse voltage      | $V_R$     | 25          | V    |
| Forward current      | $I_F$     | 35          | mA   |
| Power dissipation    | $P_d$     | 150         | mW   |
| Junction temperature | $T_j$     | 100         | °C   |
| Storage temperature  | $T_{stg}$ | -55 to +100 | °C   |

## Electrical Characteristics

(Ta = 25°C)

| Item                                    | Symbol       | Min | Typ | Max  | Unit | Test Condition  |
|---|--------------|-----|-----|------|------|---|
| Forward voltage                         | $V_F$        | —   | —   | 0.60 | V    | $I_F = 10 \text{ mA}$   |
| Reverse voltage                         | $V_R$        | 25  | —   | —    | V    | $I_F = 10 \text{ } \mu\text{A}$   |
| Reverse current                         | $I_R$        | —   | —   | 10   | nA   | $V_R = 10 \text{ V}$  |
| Capacitance                             | $C$          | —   | —   | 1.20 | pF   | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$  |
| Capacitance deviation <sup>*3</sup>     | $\Delta C$   | —   | —   | 0.10 | pF   | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$  |
| Forward voltage deviation <sup>*3</sup> | $\Delta V_F$ | —   | —   | 10   | mV   | $I_F = 10 \text{ mA}$   |
| ESD-Capability <sup>*1</sup>            | —            | 10  | —   | —    | V    | $C = 200 \text{ pF}, R = 0 \text{ } \Omega$ , Both forward and reverse direction 1 pulse. |

- Notes: 1. Failure criterion ;  $I_R \geq 20 \text{ nA}$  at  $V_R = 10 \text{ V}$   
 2. Each group shall unify a multiple of 4 diodes  
 3. Not applied to taping-type products.

Not recommended  
for new designs

Main Characteristic

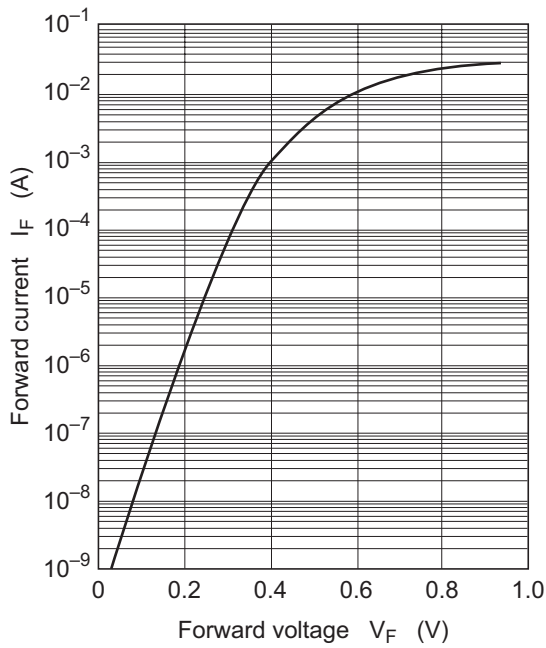


Fig.1 Forward current vs. Forward voltage

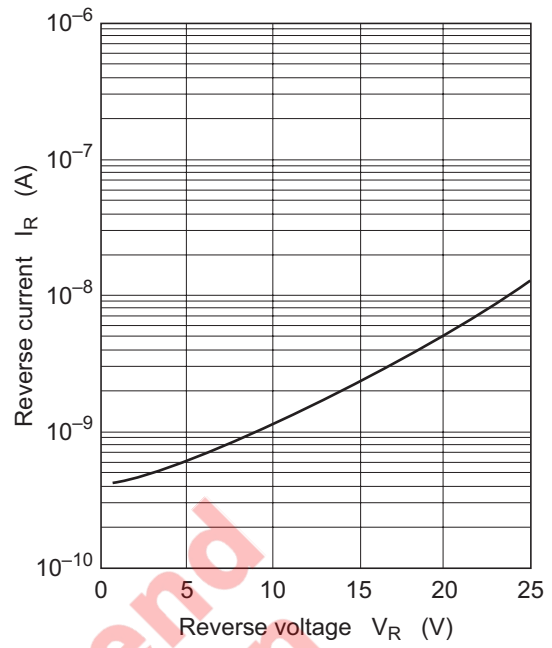


Fig.2 Reverse current vs. Reverse voltage

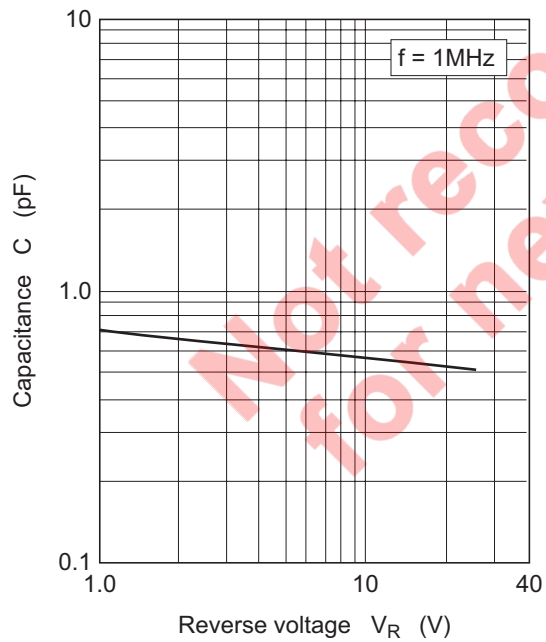
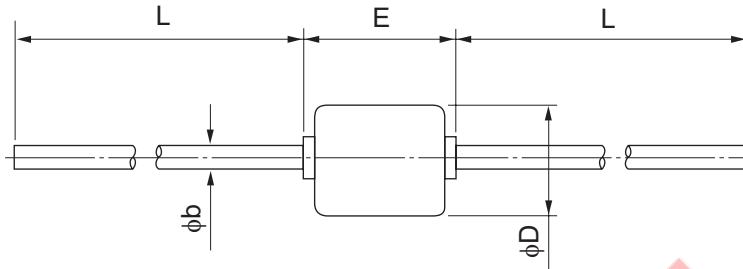


Fig.2 Capacitance vs. Reverse voltage

## Package Dimensions

|              |                    |              |               |            |
|--------------|--------------------|--------------|---------------|------------|
| Package Name | JEITA Package Code | RENESAS Code | Previous Code | MASS[Typ.] |
| MHD          | —                  | GRZZ0002ZC-A | MHD / MHDV    | 0.084g     |



| Reference Symbol | Dimension in Millimeters |     |     |
|------------------|--------------------------|-----|-----|
|                  | Min                      | Nom | Max |
| $\phi_b$         | -                        | 0.4 | -   |
| $\phi_D$         | -                        | 2.0 | -   |
| E                | -                        | -   | 2.4 |
| L                | 26.0                     | -   | -   |

Not recommend  
for new design

Notes:

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Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

**Renesas Technology Europe Limited**

Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.  
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

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

Unit 204, 205, AZIACenter, No.1233 Lujiazui Ring Rd, Pudong District, Shanghai, China 200120  
Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7898

**Renesas Technology Hong Kong Ltd.**

7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong  
Tel: <852> 2265-6688, Fax: <852> 2730-6071

**Renesas Technology Taiwan Co., Ltd.**

10th Floor, No.99, Fushing North Road, Taipei, Taiwan  
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

**Renesas Technology Singapore Pte. Ltd.**

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

**Renesas Technology Korea Co., Ltd.**

Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea  
Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

**Renesas Technology Malaysia Sdn. Bhd**

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia  
Tel: <603> 7955-9390, Fax: <603> 7955-9510