

**RENESAS**

# HRW0203B

## Silicon Schottky Barrier Diode for Rectifying

REJ03G0155-0100Z  
(Previous: ADE-208-1475)  
Rev.1.00  
Jan.06.2004

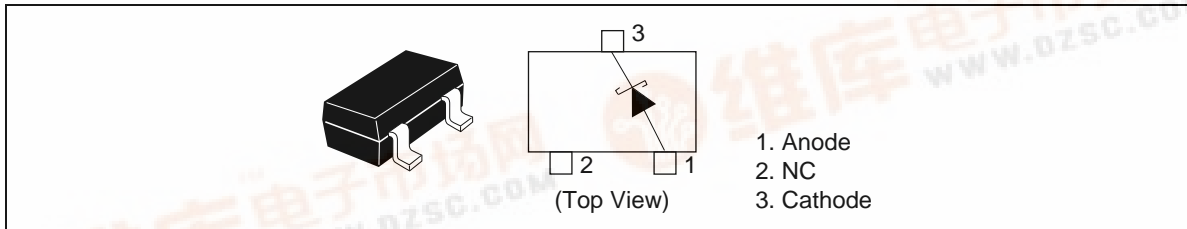
### Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HRW0203B | S21        | MPAK         |

### Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

| <b>Item</b>                               | <b>Symbol</b>  | <b>Value</b> | <b>Unit</b> |
|---|----------------|--------------|-------------|
| Repetitive peak reverse voltage           | $V_{RRM}^{*1}$ | 30           | V           |
| Average rectified current                 | $I_o^{*1}$     | 200          | mA          |
| Non-Repetitive peak forward surge current | $I_{FSM}^{*2}$ | 3            | A           |
| Junction temperature                      | Tj             | 125          | °C          |
| Storage temperature                       | Tstg           | -55 to +125  | °C          |

Notes: 1. See from Fig.1 to Fig.5, with polyimide board  
2. 50 Hz sine wave 1 pulse

**Electrical Characteristics**

(Ta = 25°C)

| <b>Item</b>     | <b>Symbol</b> | <b>Min</b> | <b>Typ</b> | <b>Max</b> | <b>Unit</b>   | <b>Test Condition</b>                  |
|-----------------|---------------|------------|------------|------------|---------------|--|
| Forward voltage | $V_F$         | —          | —          | 0.5        | V             | $I_F = 200 \text{ mA}$                 |
| Reverse current | $I_R$         | —          | —          | 50         | $\mu\text{A}$ | $V_R = 30 \text{ V}$                   |
| Capacitance     | C             | —          | 40         | —          | pF            | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$ |

Main Characteristic

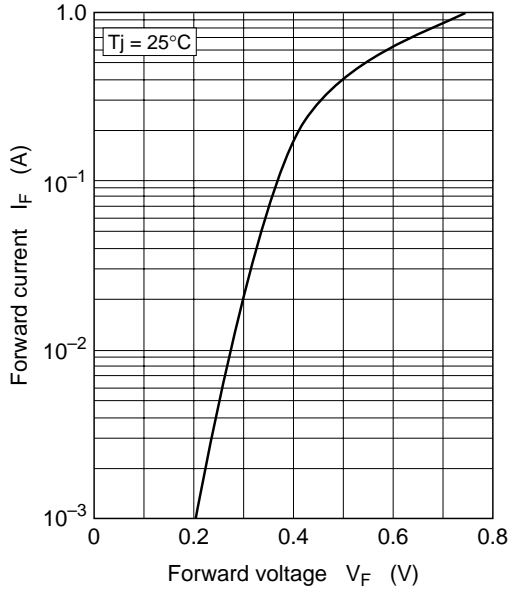


Fig.1 Forward current vs. Forward voltage

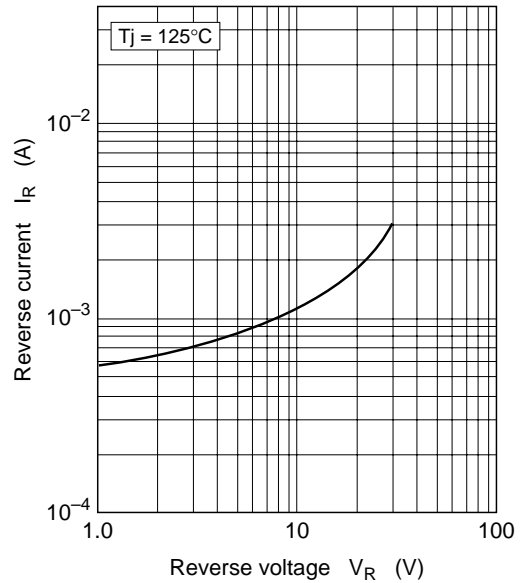


Fig.2 Reverse current vs. Reverse voltage

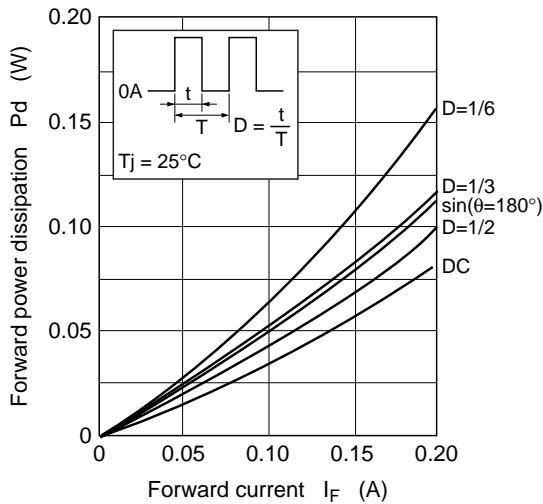


Fig.3 Forward power dissipation vs. Forward current

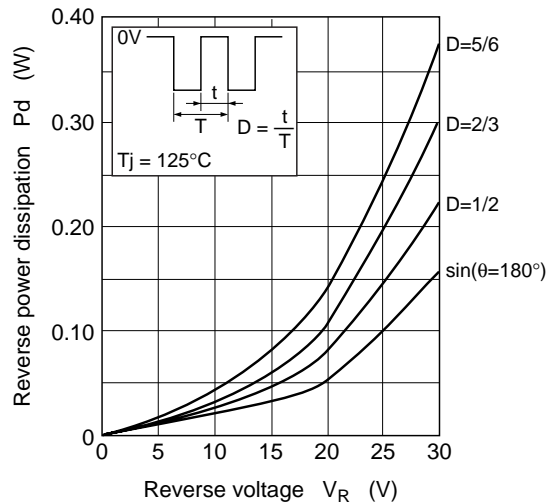


Fig.4 Reverse power dissipation vs. Reverse voltage

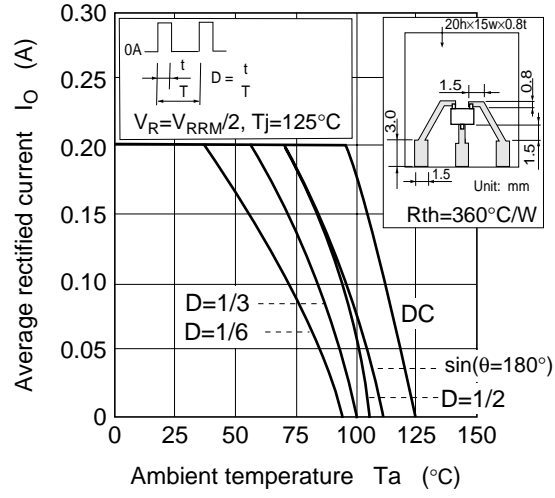


Fig.5 Average rectified current vs. Ambient temperature

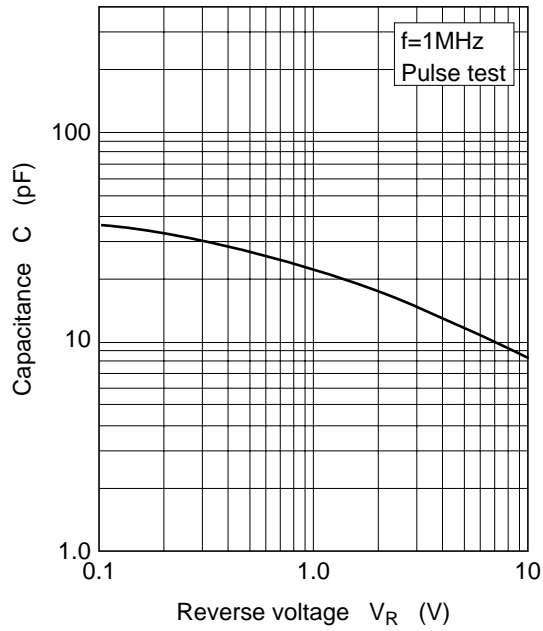
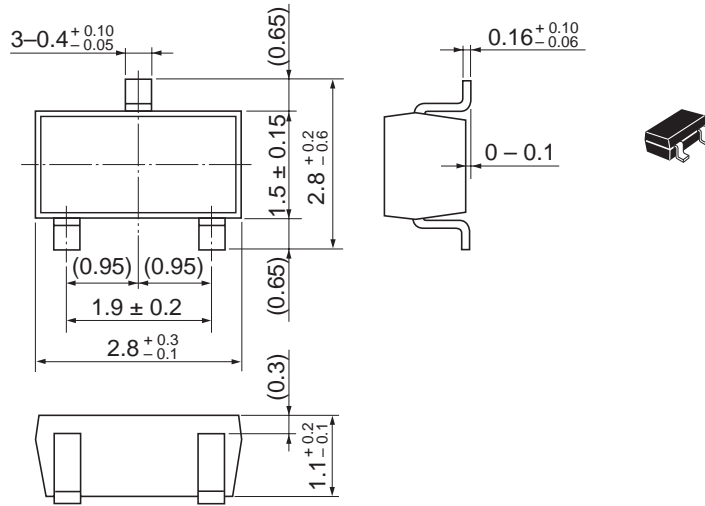


Fig.6 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



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

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

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

