

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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# HRC0201A

## Silicon Schottky Barrier Diode for Rectifying

REJ03G0618-0200

Rev.2.00

Jan 09, 2009

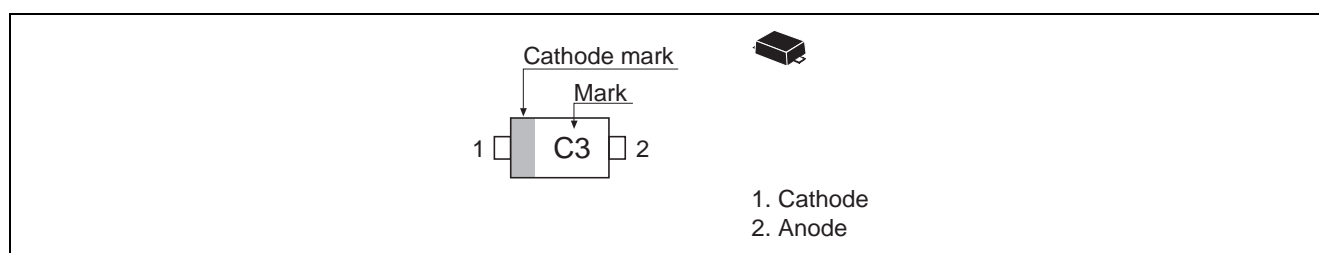
### Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Ultra small Flat Lead Package (UFP) is suitable for compact and high-density surface mount design.

### Ordering Information

| Part No.    | Laser Mark | Package Name | Package Code | Taping Abbreviation (Quantity) |
|-------------|------------|--------------|--------------|--------------------------------|
| HRC0201ATRF | C3         | UFP          | PWSF0002ZA-A | TRF (4,000 pcs / reel)         |

### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

| Item                                      | Symbol         | Value       | Unit |
|---|----------------|-------------|------|
| Repetitive peak reverse voltage           | $V_{RRM}^{*1}$ | 15          | V    |
| Reverse voltage                           | $V_R$          | 15          | V    |
| Average rectified current                 | $I_O^{*1}$     | 200         | mA   |
| Peak forward current                      | $I_{FM}$       | 300         | mA   |
| Non-Repetitive peak forward surge current | $I_{FSM}^{*1}$ | 1           | A    |
| Junction temperature                      | $T_j$          | 125         | °C   |
| Storage temperature                       | $T_{stg}$      | -55 to +125 | °C   |

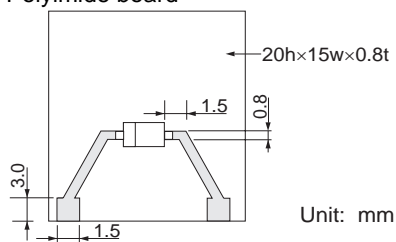
Notes: 1. See from Fig.4 to Fig.6, with polyimide board.  
 2. 10 ms sine wave 1 pulse.

## Electrical Characteristics

(Ta = 25°C)

| Item               | Symbol        | Min | Typ | Max  | Unit          | Test Condition                         |
|--------------------|---------------|-----|-----|------|---------------|--|
| Forward voltage    | $V_F$         | —   | —   | 0.39 | V             | $I_F = 200 \text{ mA}$                 |
| Reverse current    | $I_R$         | —   | —   | 50   | $\mu\text{A}$ | $V_R = 6 \text{ V}$                    |
| Capacitance        | $C$           | —   | 18  | —    | pF            | $V_R = 1 \text{ V}, f = 1 \text{ MHz}$ |
| Thermal resistance | $R_{th(j-a)}$ | —   | 600 | —    | °C/W          | Polyimide board $^{*1}$                |

Note: 1. Polyimide board



Note: In the UFP package, some lead is exposed because the tip of the lead is used as the cutting plane. Therefore, the solderability of the lead tip has been ignored. Please test and confirm before use.

Main Characteristics

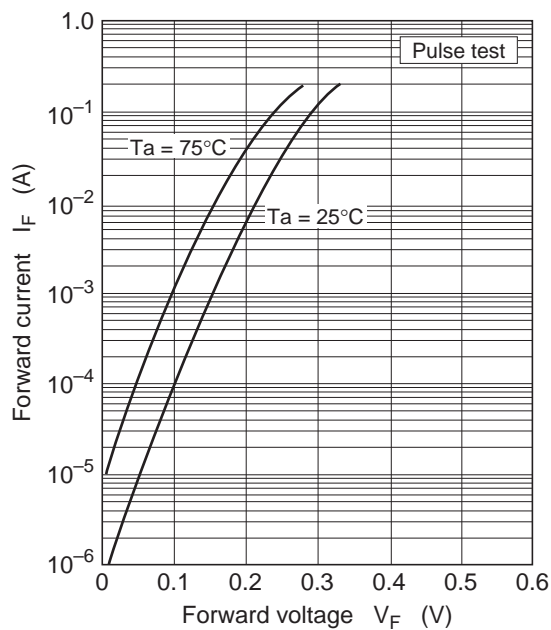


Fig.1 Forward current vs. Forward voltage

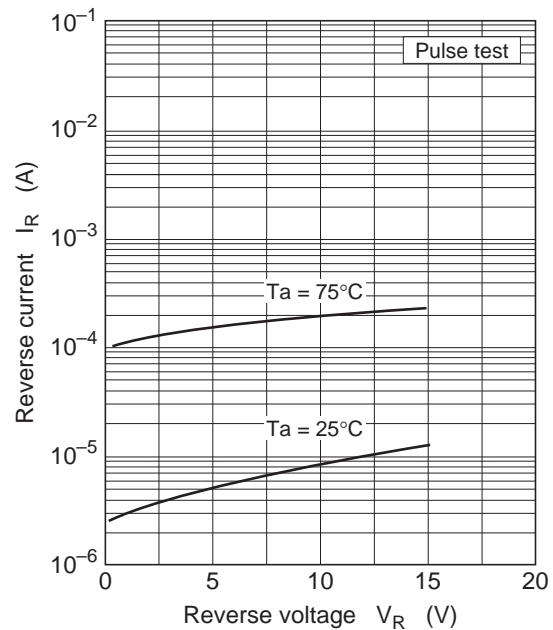


Fig.2 Reverse current vs. Reverse voltage

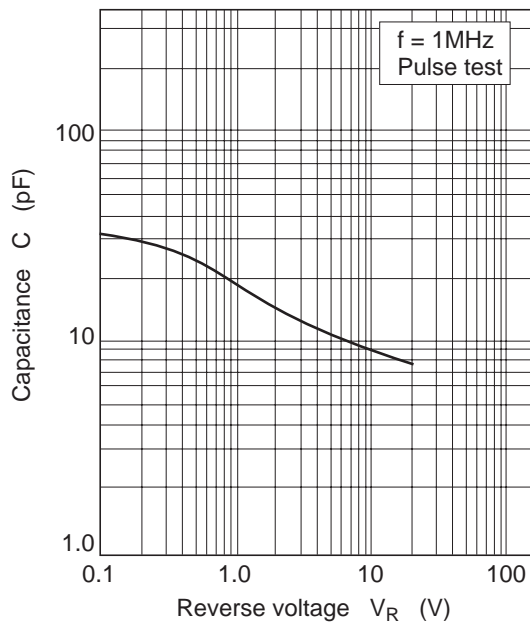


Fig.3 Capacitance vs. Reverse voltage

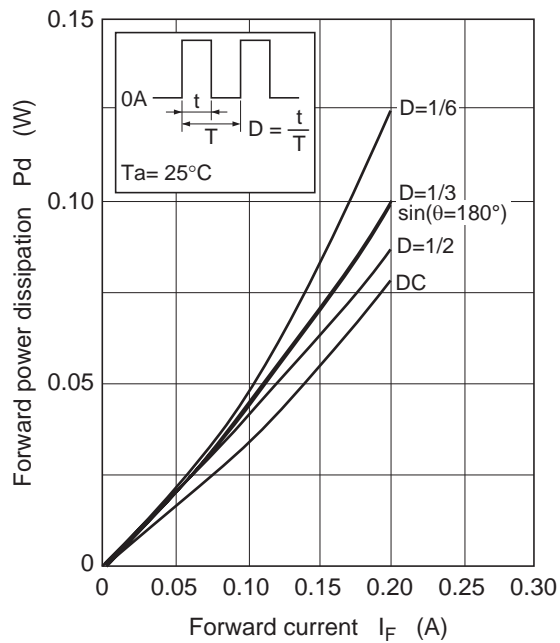


Fig.4 Forward power dissipation vs. Forward current

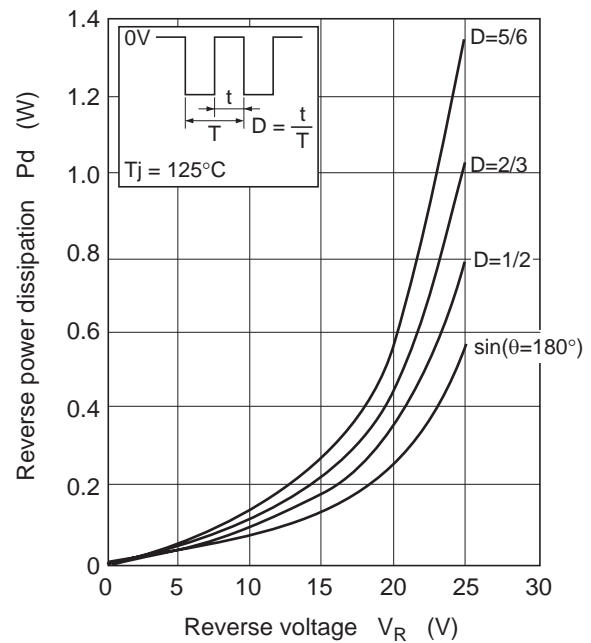


Fig.5 Reverse power dissipation vs. Reverse voltage

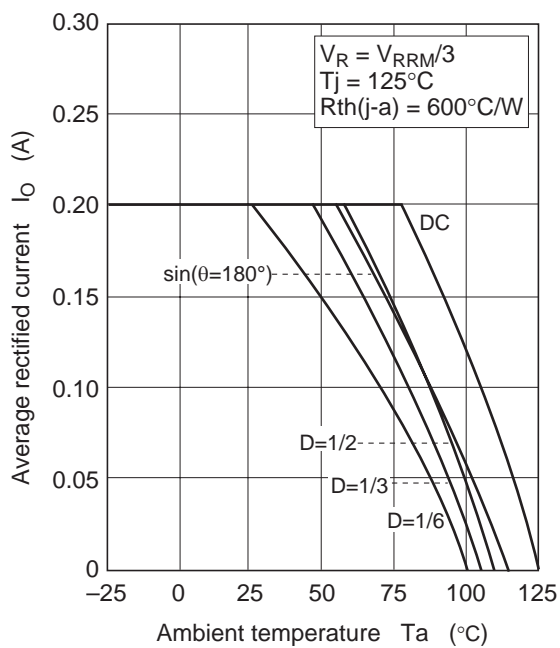
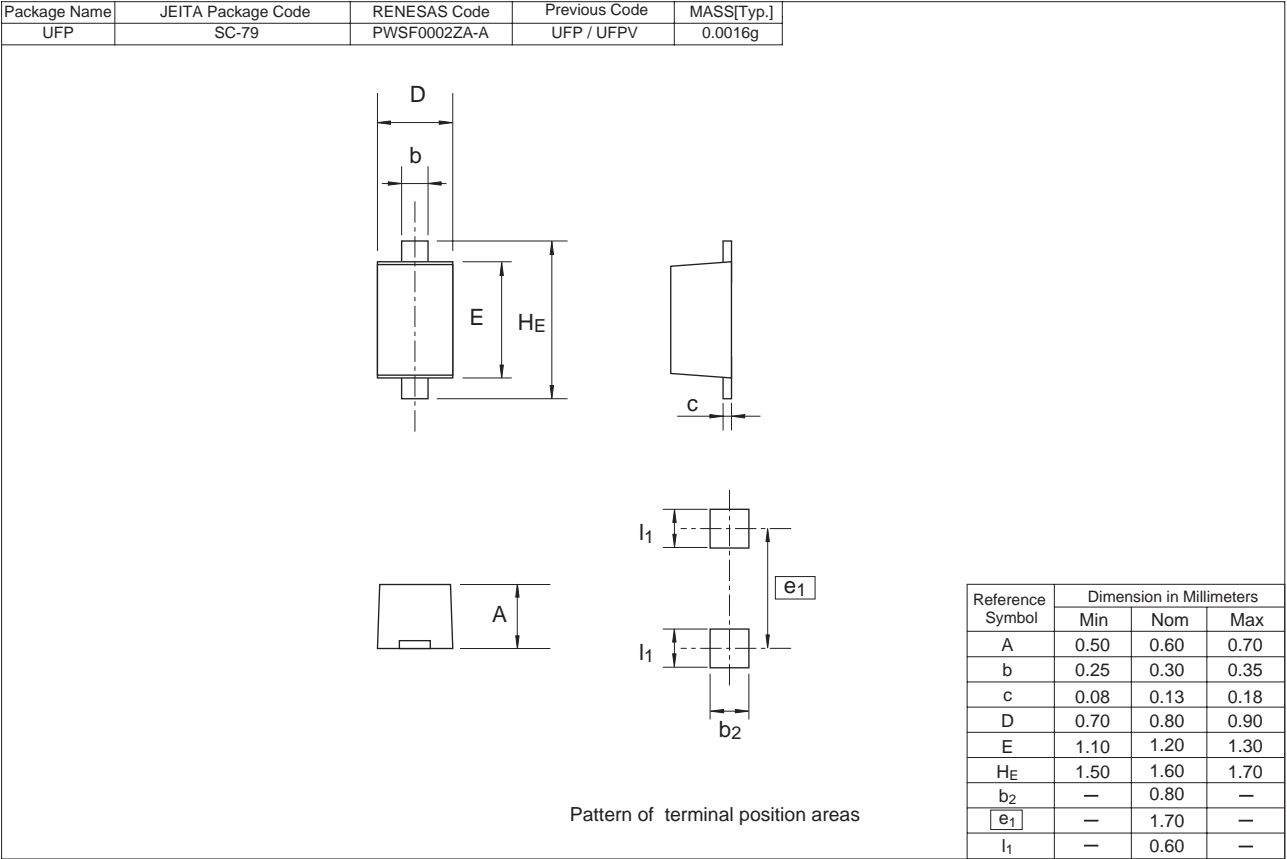


Fig.6 Average rectified current vs. Ambient temperature

Package Dimensions



Notes:

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