

HRU0203A

Silicon Schottky Barrier Diode for Rectifying

REJ03G0150-0400

Rev.4.00

Jun 08, 2007

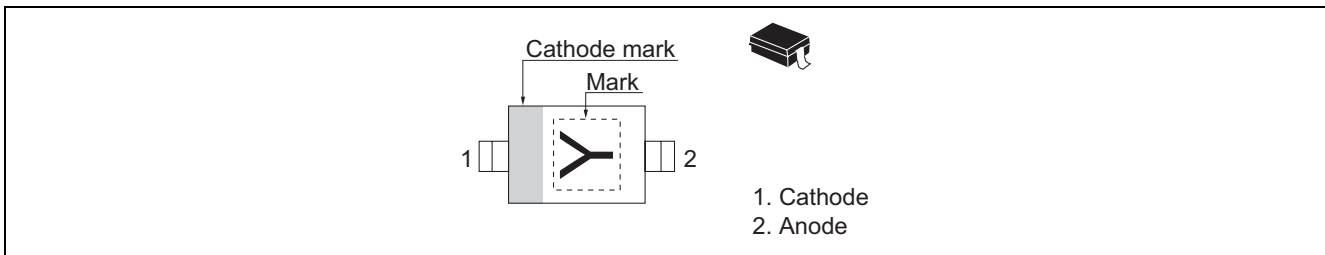
Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- Ultra small Resin Package (URP) is suitable for high density surface mounting and high speed assembly.

Ordering Information

| Part No. | Laser Mark | Package Name | Package Code |
|----------|------------|--------------|--------------|
| HRU0203A | Y | URP | PTSP0002ZA-A |

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

| Item | Symbol | Value | Unit |
|---|----------------|-------------|------|
| 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} | 2 | A |
| Junction temperature | T_j | 125 | °C |
| Storage temperature | T_{stg} | -55 to +125 | °C |

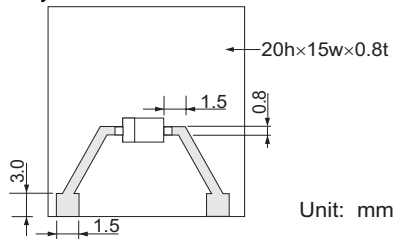
Notes: 1. See from Fig.3 to Fig.5.
2. 10 ms sine wave 1 pulse.

Electrical Characteristics

(Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test Condition |
|--------------------|---------------|-----|-----|------|---------------|-------------------------------|
| Forward voltage | V_F | — | — | 0.50 | V | $I_F = 200 \text{ mA}$ |
| Reverse current | I_R | — | — | 50 | μA | $V_R = 30 \text{ V}$ |
| Thermal resistance | $R_{th(j-a)}$ | — | 520 | — | °C/W | Polyimide board ^{*1} |

Note: 1. Polyimide board



Main Characteristic

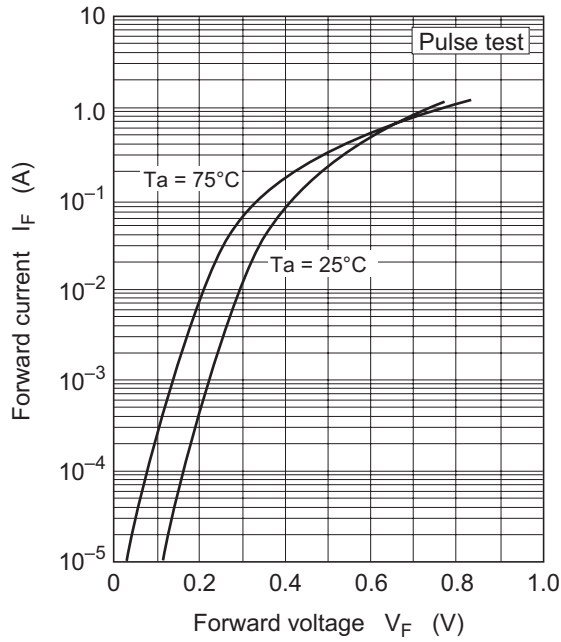


Fig.1 Forward current vs. Forward voltage

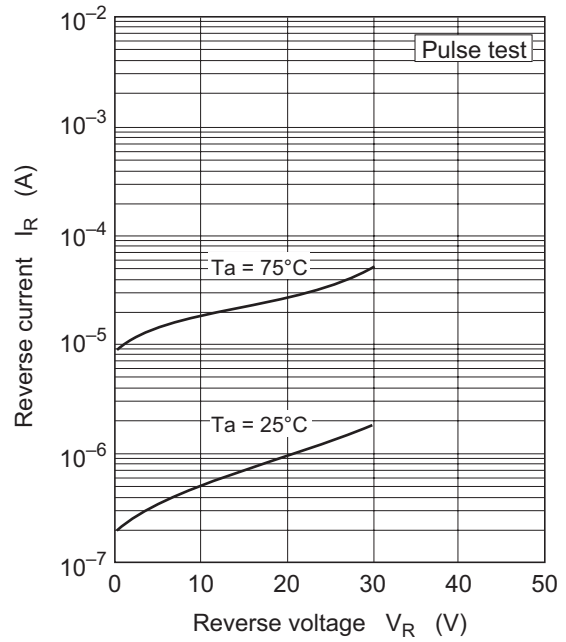


Fig.2 Reverse current vs. Reverse voltage

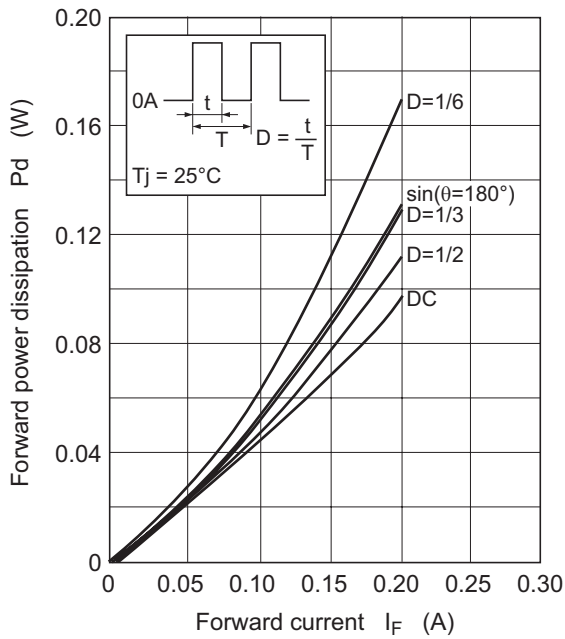


Fig3. Forward power dissipation vs. Forward current

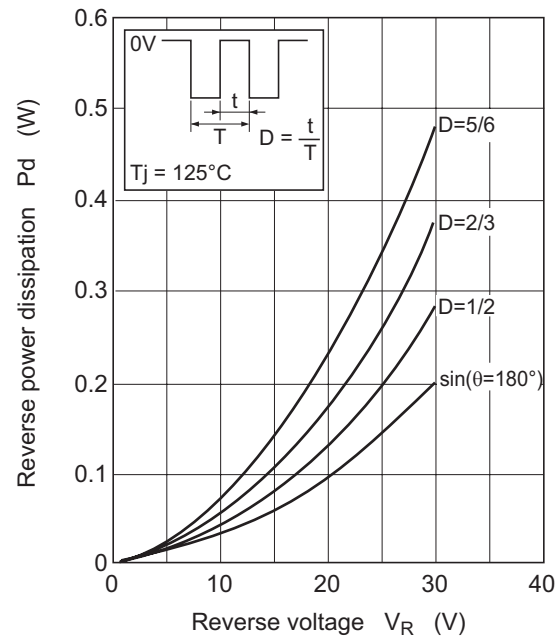


Fig4. Reverse power dissipation vs. Reverse voltage

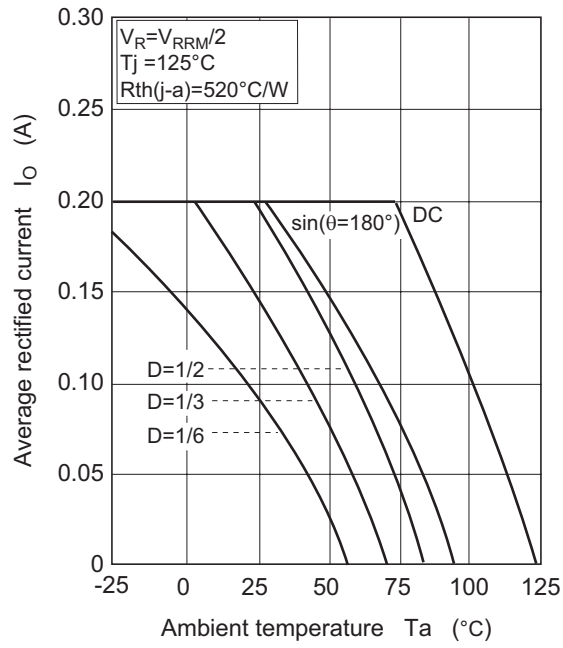
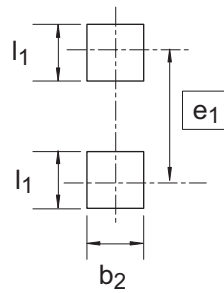
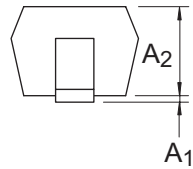
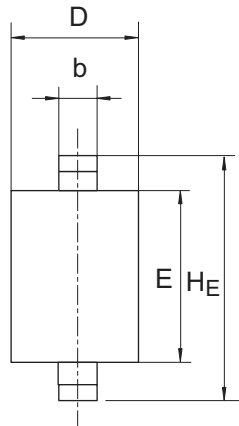


Fig.5 Average rectified current vs. Ambient temperature

Package Dimensions

| | | | | |
|--------------|--------------------|--------------|---------------|------------|
| Package Name | JEITA Package Code | RENESAS Code | Previous Code | MASS[Typ.] |
| URP | SC-76A | PTSP0002ZA-A | URP / URPV | 0.004g |



Pattern of terminal position areas

| Reference Symbol | Dimension in Millimeters | | |
|------------------|--------------------------|------|------|
| | Min | Nom | Max |
| A ₁ | 0 | - | 0.1 |
| A ₂ | 0.75 | 0.90 | 1.05 |
| b | 0.15 | 0.30 | 0.45 |
| D | 1.10 | 1.25 | 1.40 |
| E | 1.55 | 1.70 | 1.85 |
| H _E | 2.35 | 2.50 | 2.65 |
| b ₂ | - | 0.80 | - |
| e ₁ | - | 2.30 | - |
| l ₁ | - | 0.80 | - |

Notes:

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