

## SJPB-H4

Schottky Barrier Rectifier

Mar. 2008

### General Description

SJPB-H4 is a Schottky Barrier Diode, and has achieved low leakage current and low VF by selecting the best barrier metal.

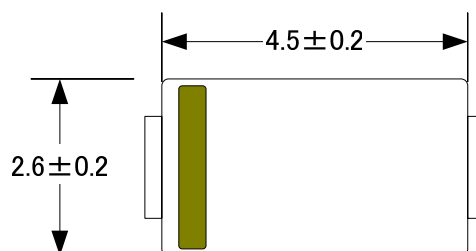
### Applications

- DC-DC converters
- AC adapter
- High frequency rectification circuit

### Features

- Super-high speed & low noise switching.
- Low forward voltage drop.

### Package

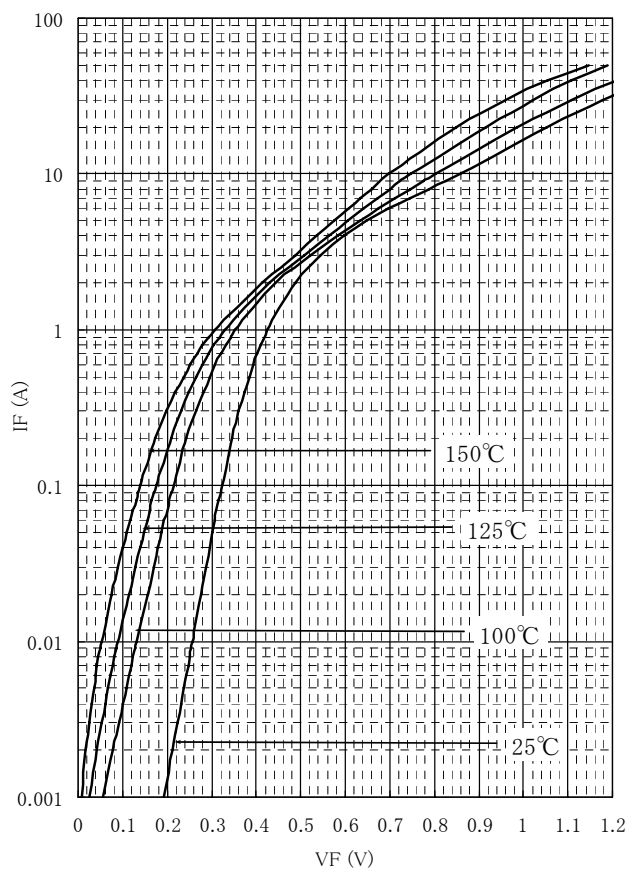


### Key Specifications

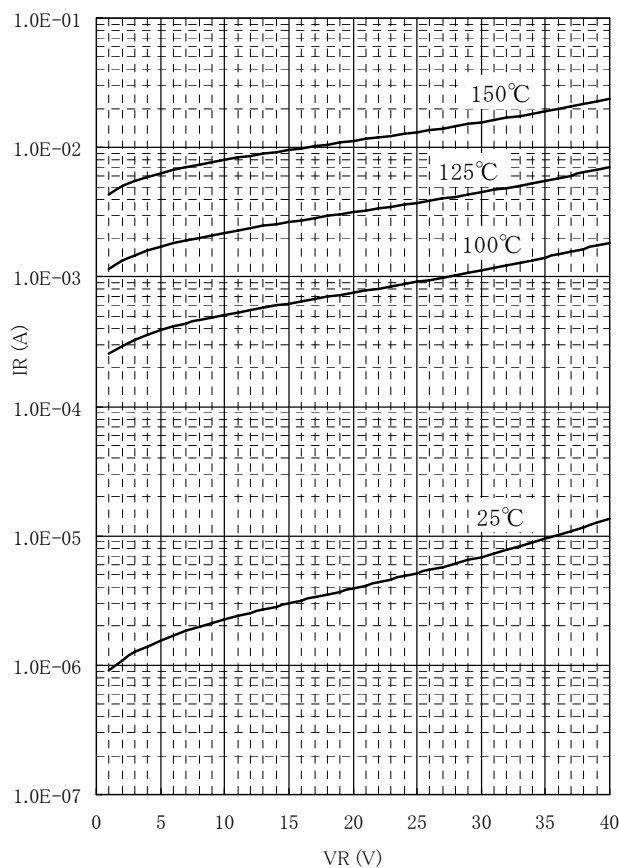
| Symbol      | Unit | Rating | Conditions |
|-------------|------|--------|------------|
| $V_{RM}$    | V    | 40     |            |
| $V_F$       | V    | 0.55   | $I_F=2.0A$ |
| $I_{F(AV)}$ | A    | 2.0    |            |

### Typical Characteristics

SJPB-H4 IF-VF Characteristics



SJPB-H4 VR-IR Characteristics



The information included herein is believed to be accurate and reliable. However, SANKEN ELECTRIC CO., LTD assumes no responsibility for its use ; nor for any infringements of patents or other rights of third parties that may result from its use.

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**★ Absolute maximum ratings**

| No. | Parameter                      | Symbol      | Unit   | Rating      | Conditions              |
|-----|--------------------------------|-------------|--------|-------------|-------------------------|
| 1   | Transient Peak Reverse Voltage | $V_{RSM}$   | V      | 40          |                         |
| 2   | Peak Reverse Voltage           | $V_{RM}$    | V      | 40          |                         |
| 3   | Average Forward Current        | $I_{F(AV)}$ | A      | 2.0         |                         |
| 4   | Peak Surge Forward Current     | $I_{FSM}$   | A      | 50          | Half sinewave, one shot |
| 5   | $I^2t$ Limiting Value          | $I^2t$      | $A^2s$ | 12.5        | $1msec < t < 10msec$    |
| 6   | Junction Temperature           | $T_j$       | °C     | -40 to +150 |                         |
| 7   | Storage Temperature            | $T_{stg}$   | °C     | -40 to +150 |                         |

**★ Electrical characteristics( $T_a=25^{\circ}C$ , unless otherwise specified)**

| No. | Parameter                                      | Symbol        | Unit    | Rating    | Conditions                        |
|-----|------------------------------------------------|---------------|---------|-----------|-----------------------------------|
| 1   | Forward Voltage Drop                           | $V_F$         | V       | 0.55 max. | $I_F=2.0A$                        |
| 2   | Reverse Leakage Current                        | $I_R$         | $\mu A$ | 200 max.  | $V_R=V_{RM}$                      |
| 3   | Reverse Leakage Current Under High Temperature | $H \cdot I_R$ | mA      | 70 max.   | $V_R=V_{RM}$ , $T_j=150^{\circ}C$ |
| 4   | Thermal Resistance                             | $R_{th(j-c)}$ | °C/W    | 20 max.   | Between Junction and Lead         |

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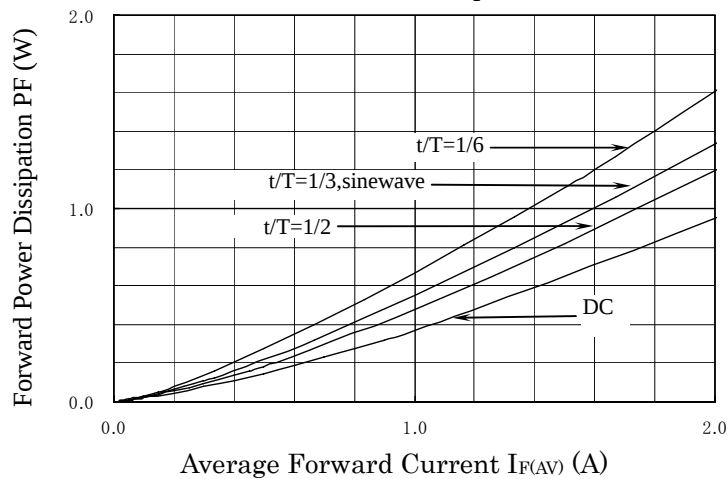
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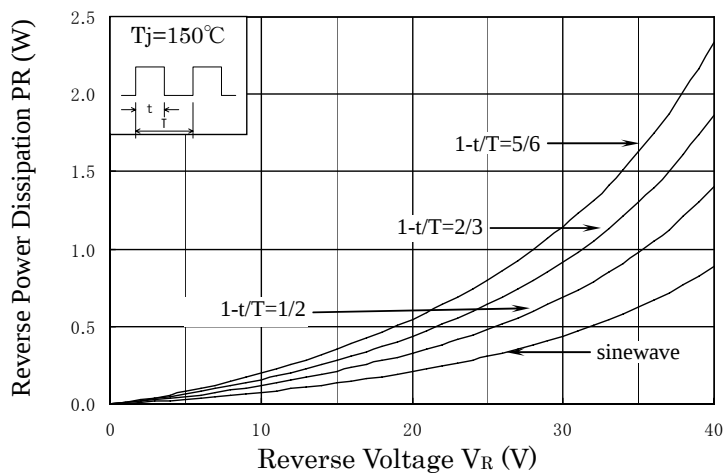
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## ★ Characteristics

Forward Power Dissipation

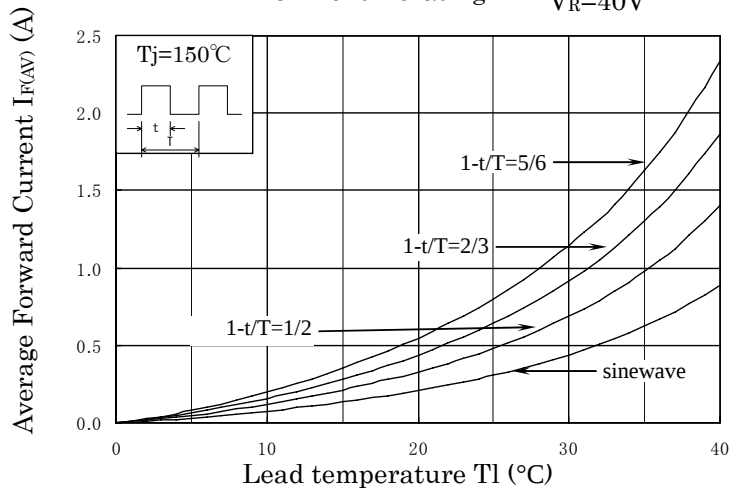


Reverse Power Dissipation



Current Derating

$V_R=40\text{V}$

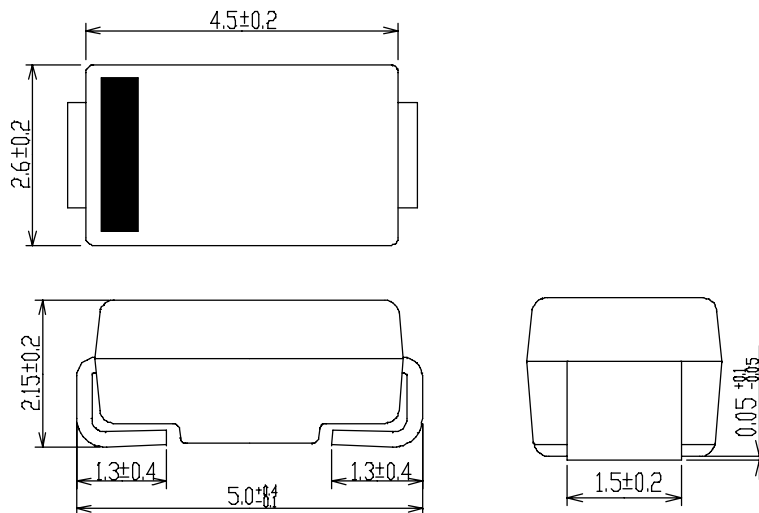


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★ Outline drawings, mm



★ Connection Diagram

