

SJPB-L4

May. 2016

Schottky Barrier Rectifier

General Description

SJPB-L4 is a Schottky Barrier Diode, and has achieved low leakage current and low VF by selecting the best barrier metal.

Applications

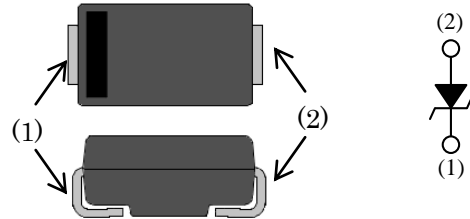
- DC-DC converters
- AC adapter
- High frequency rectification circuit

Features

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

Package

SJP



(1) Cathode
(2) Anode

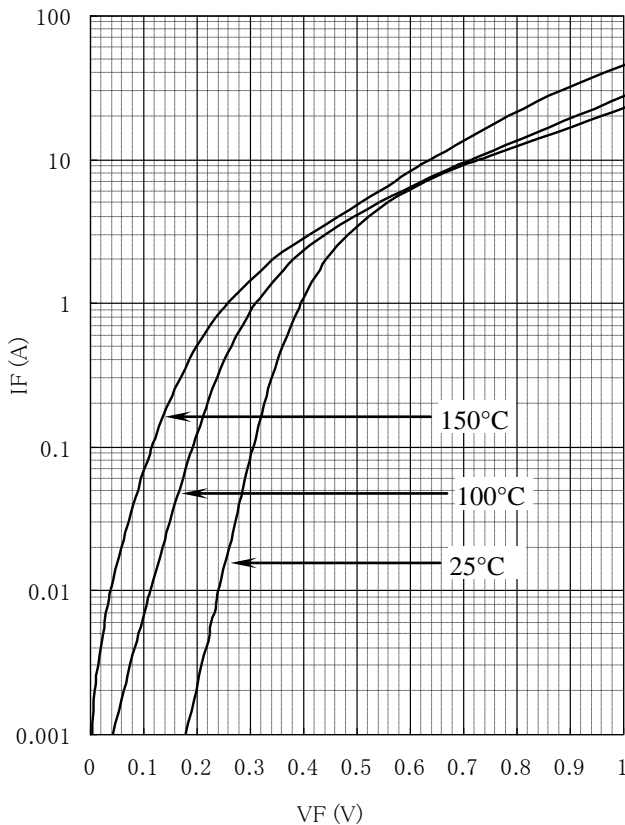
Not to Scale

Key Specifications

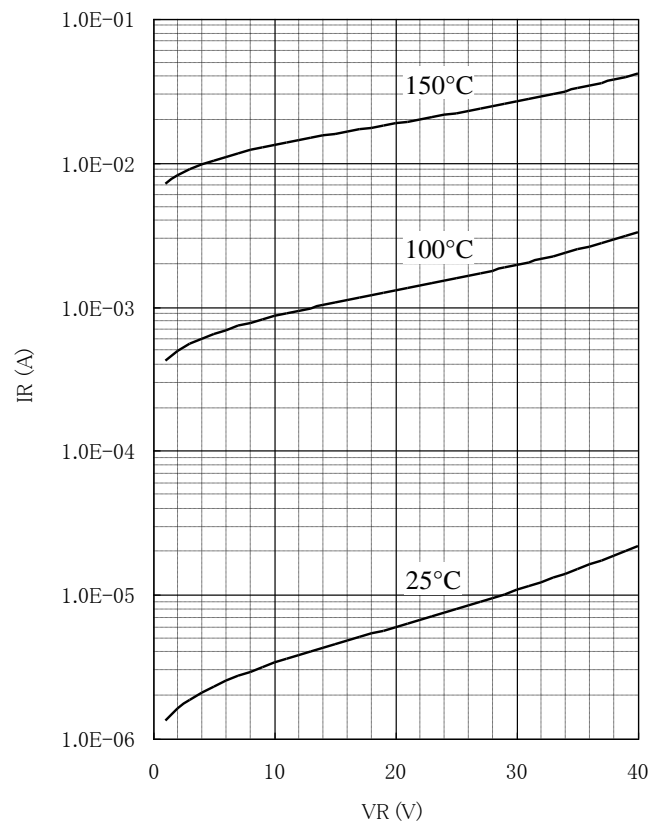
| Item | Rating | Unit | Conditions |
|-------------|--------|------|------------|
| V_{RM} | 40 | V | |
| V_F | 0.55 | V | $I_F=3.0A$ |
| $I_{F(AV)}$ | 3.0 | A | |

Typical Characteristics

SJPB-L4 IF-VF Characteristics



SJPB-L4 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. | Item | 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 | 3.0 | |
| 4 | Peak Surge Forward Current | I_{FSM} | A | 60 | Half sine-wave, one shot |
| 5 | I^2t Limiting Value | I^2t | A^2s | 18 | $1ms \leq t \leq 10ms$ |
| 6 | Junction Temperature | T_j | $^{\circ}C$ | -40 to 150 | |
| 7 | Storage Temperature | T_{stg} | $^{\circ}C$ | -40 to 150 | |

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

| No. | Item | Symbol | Unit | Value | Conditions |
|-----|--|---------------|---------------|-----------|--------------------------------|
| 1 | Forward Voltage Drop | V_F | V | 0.55 max. | $I_F=3.0A$ |
| 2 | Reverse Leakage Current | I_R | μA | 300 max. | $V_R=V_{RM}$ |
| 3 | Reverse Leakage Current Under High Temperature | $H \cdot I_R$ | mA | 100 max. | $V_R=V_{RM}, T_j=150^{\circ}C$ |
| 4 | Thermal Resistance | $R_{th(j-c)}$ | $^{\circ}C/W$ | 20 max. | Between Junction and Lead |

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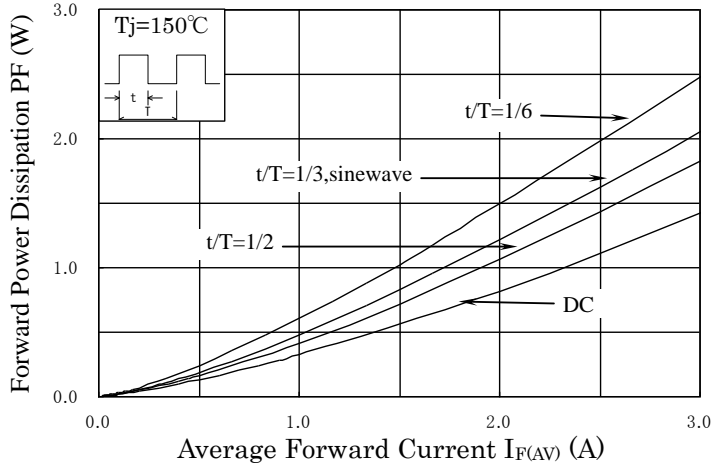
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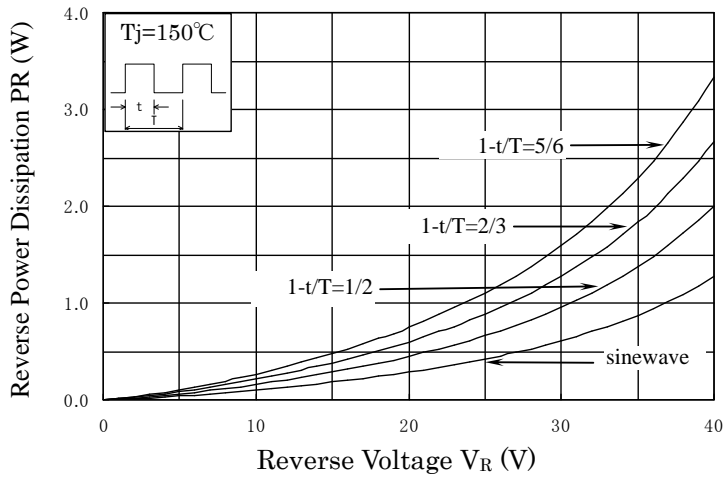
May, 2016

Characteristics

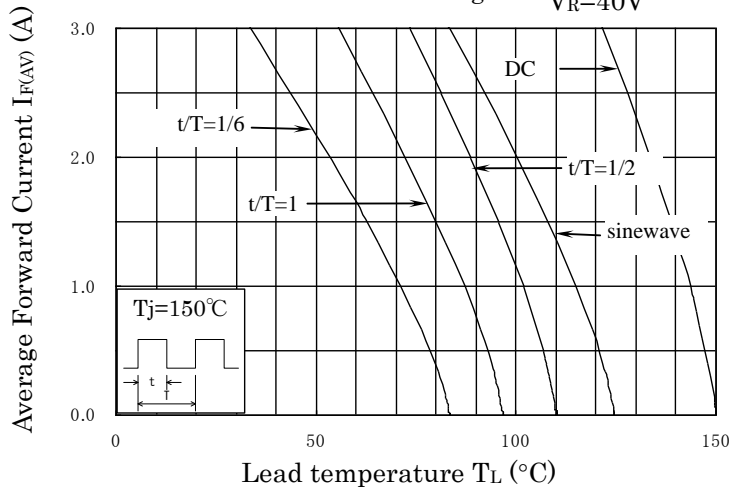
Forward Power Dissipation



Reverse Power Dissipation



Current Derating $V_R=40\text{V}$



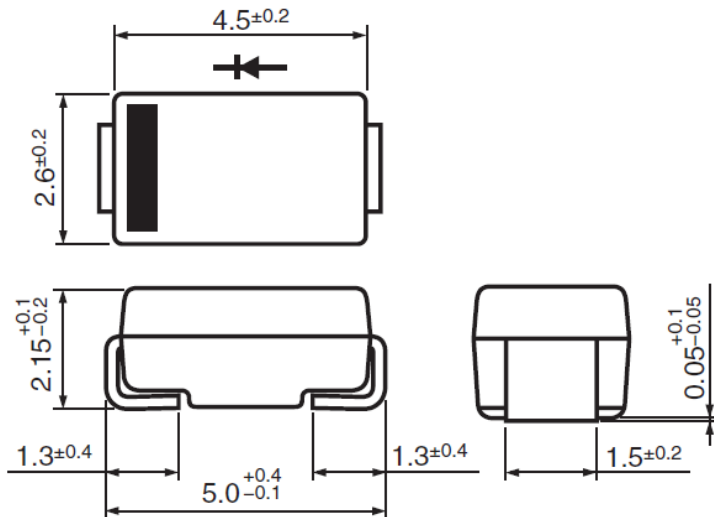
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Outline drawings

- SJP



NOTES:

- Dimension is in millimeters.
- Lead treatment Pb-free. Device composition compliant with the RoHS directive.

Connection Diagram



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