

**V<sub>RM</sub> = 30 V, I<sub>F(AV)</sub> = 2.0 A**  
**Schottky Diode**  
**SJPJ-H3**

**Description**

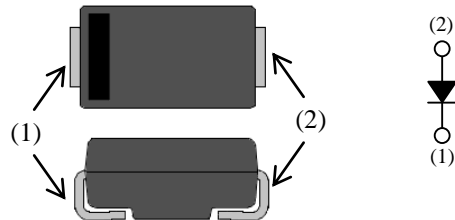
SJPJ-H3 is a Schottky diode that is low forward voltage drop, and achieves high efficiency rectification circuit.

**Features**

- Low Saturation Voltage
- High Speed Switching
- V<sub>RM</sub>-----30 V
- I<sub>F(AV)</sub>-----2.0 A
- V<sub>F</sub> (25 °C)-----0.45 V

**Package**

SJP



(1) Cathode  
(2) Anode

Not to Scale

**Application**

- Secondary Side Rectifier Diode of Flyback Converter, LLC Converter, etc.
- Freewheel Diode of DC/DC Converter

**Absolute Maximum Ratings**

Unless specifically noted T<sub>A</sub> = 25 °C.

| Parameter                        | Symbol             | Conditions                         | Rating     | Unit             | Remarks |
|----------------------------------|--------------------|------------------------------------|------------|------------------|---------|
| Transient Peak Reverse Voltage   | V <sub>RSM</sub>   |                                    | 30         | V                |         |
| Repetitive Peak Reverse Voltage, | V <sub>RM</sub>    |                                    | 30         | V                |         |
| Average Forward Current          | I <sub>F(AV)</sub> | See the Power Dissipation Curves.  | 2.0        | A                |         |
| Surge Forward Current            | I <sub>FSM</sub>   | 10ms. Half sine-wave, single pulse | 50         | A                |         |
| I <sup>2</sup> t Limiting Value  | I <sup>2</sup> t   | 1ms ≤ t ≤ 10ms                     | 12.5       | A <sup>2</sup> s |         |
| Junction Temperature             | T <sub>j</sub>     |                                    | -40 to 150 | °C               |         |
| Storage Temperature              | T <sub>stg</sub>   |                                    | -40 to 150 | °C               |         |

**Electrical Characteristics**

Unless specifically noted, T<sub>A</sub> = 25 °C.

| Parameter                                      | Symbol               | Conditions   | Min. | Typ. | Max. | Unit |
|--|----------------------|--|------|------|------|------|
| Forward Voltage Drop                           | V <sub>F</sub>       | I <sub>F</sub> = 2.0 A                                     | -    |      | 0.45 | V    |
| Reverse Leakage Current                        | I <sub>R</sub>       | V <sub>R</sub> = V <sub>RM</sub>                           | -    | -    | 200  | μA   |
| Reverse Leakage Current Under High Temperature | H · I <sub>R</sub>   | V <sub>R</sub> = V <sub>RM</sub> , T <sub>j</sub> = 150 °C | -    | -    | 70   | mA   |
| Thermal Resistance*                            | R <sub>th(j-L)</sub> |  | -    | -    | 20   | °C/W |

\*R<sub>th(j-L)</sub> is thermal resistance between junction and lead.

Performance Curves

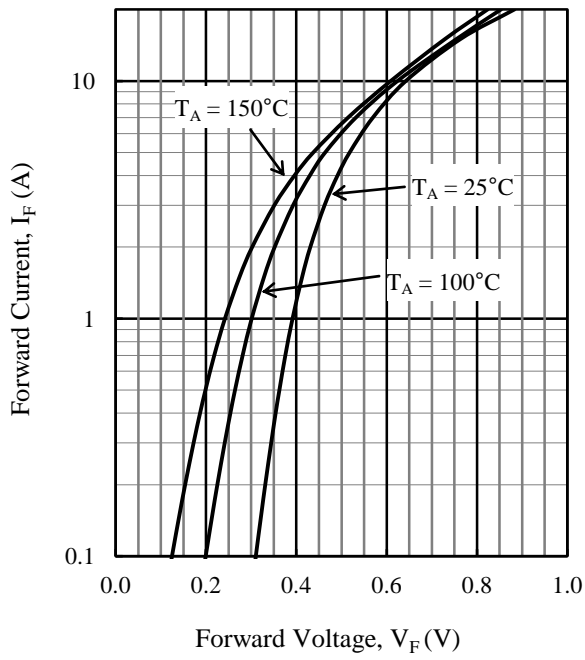


Figure 1  $I_F$  vs.  $V_F$  typical characteristics

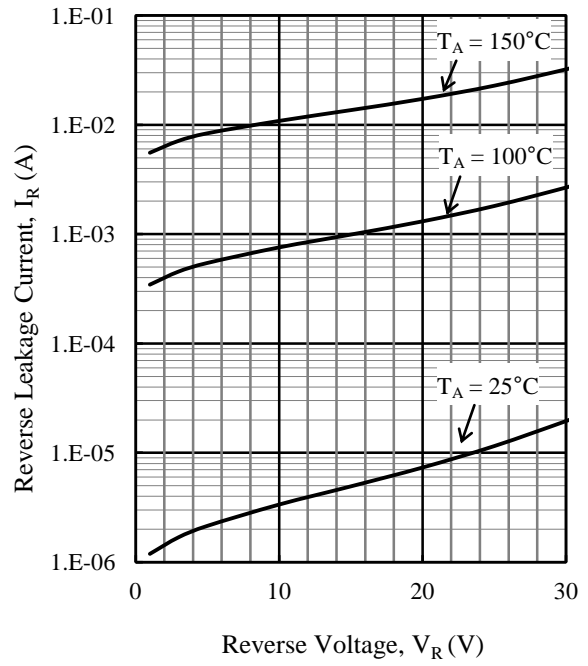


Figure 2  $I_R$  vs.  $V_R$  typical characteristics

Power Dissipation Curves

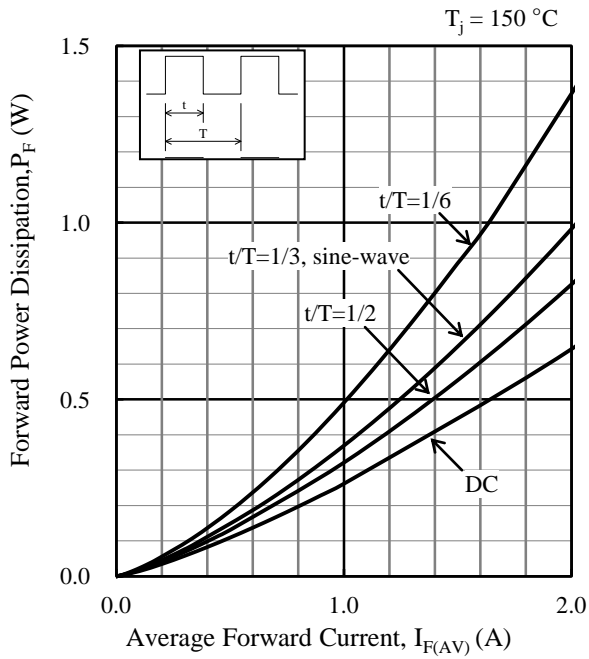


Figure 3  $P_F$  vs.  $I_{F(AV)}$

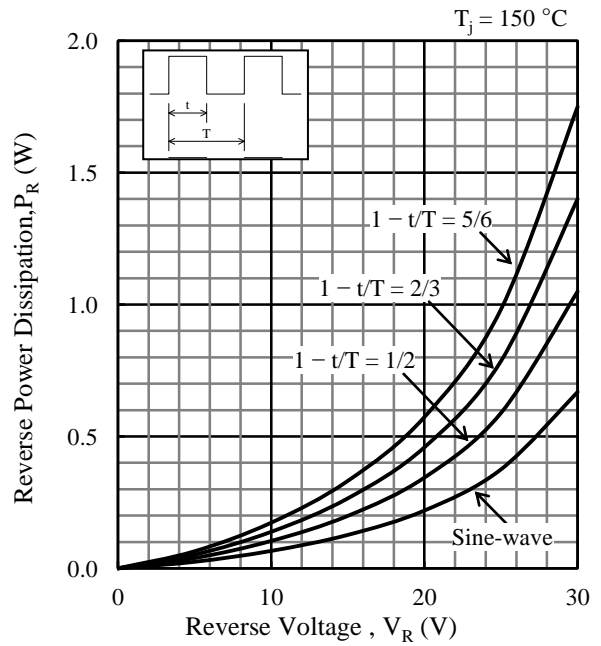


Figure 4  $P_R$  vs.  $V_R$

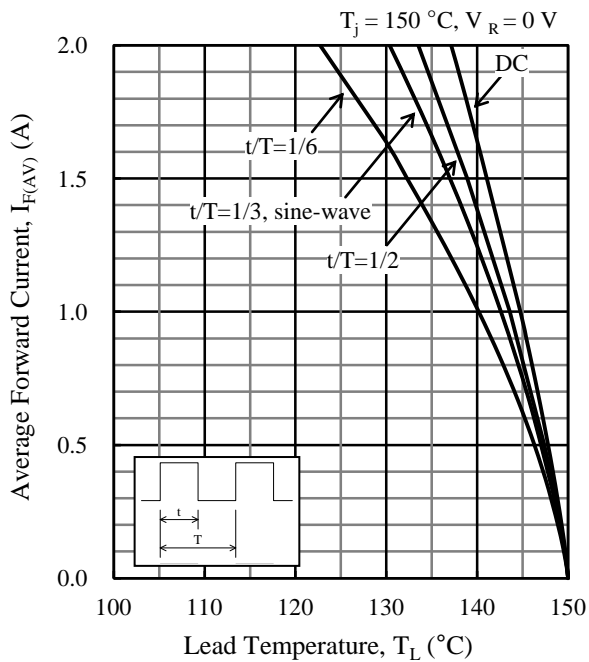


Figure 5  $I_{F(AV)}$  vs.  $T_L$  ( $V_R = 0\text{ V}$ )

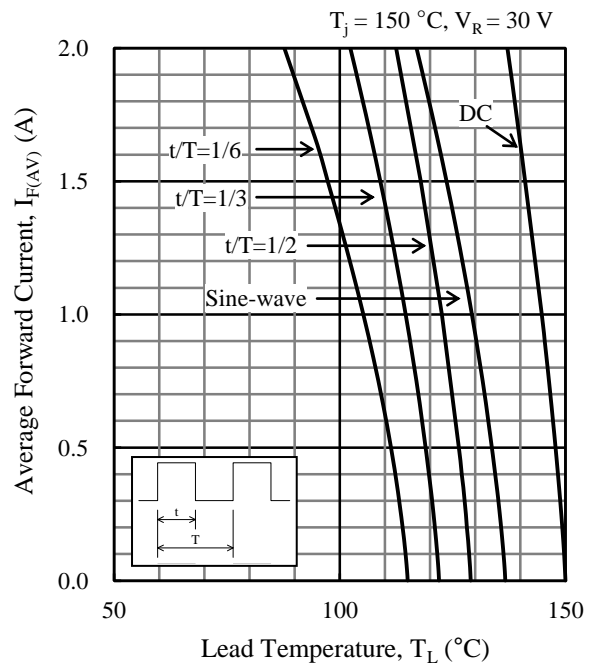
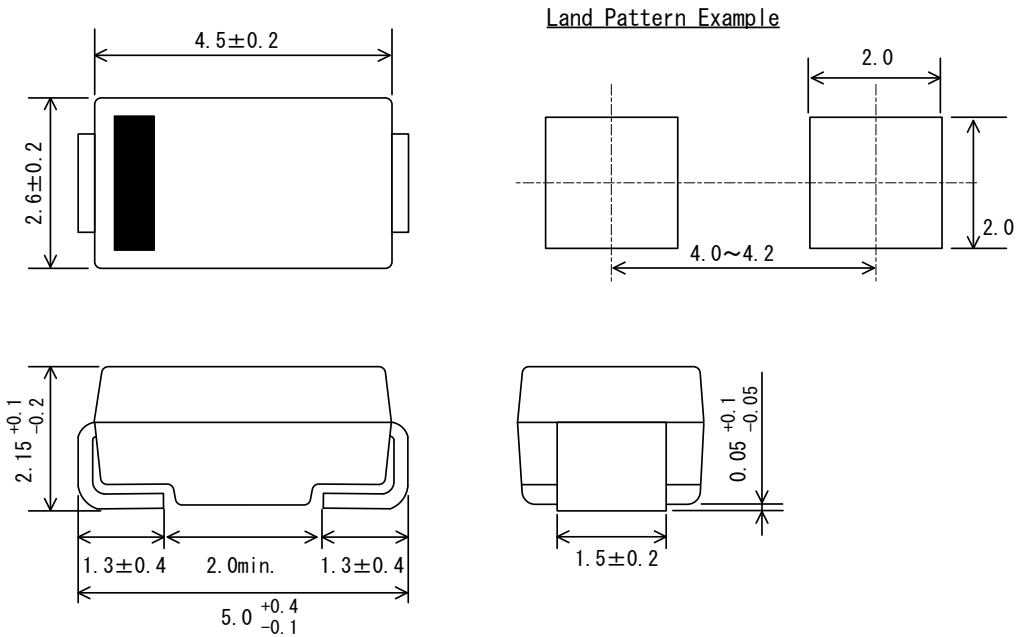


Figure 6  $I_{F(AV)}$  vs.  $T_L$  ( $V_R = 30\text{ V}$ )

# SJPJ-H3

## External Dimensions

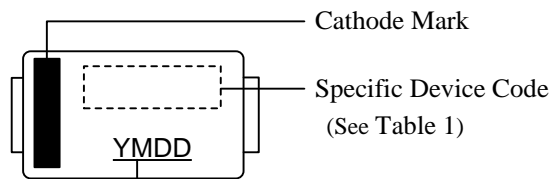
- SJP



### NOTES:

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

## Marking Diagram



Lot Number:

Y is the last digit of the year of manufacture (0 to 9)

M is the month of the year (1 to 9, O, N or D)

DD is the day of the month (01 to 31)

Table 1 Specific Device Code

| Specific Device Code | Products |
|----------------------|----------|
| JH3                  | SJPJ-H3  |

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