

SJPX-F2

Fast Recovery Diode

May. 2016

General Description

SJPX-F2 has the characteristics of low VF and superior tr at high temperature. High efficiency is achieved by reducing the loss of circuit at high temperature.

Applications

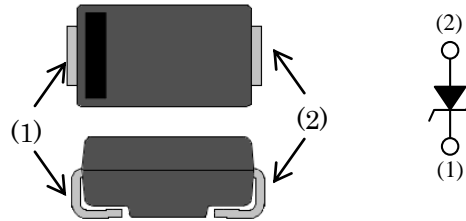
- DC-DC converters
- AC adapter
- High frequency rectification circuit

Features

- Low VF
- Fast switching
- Reduce the loss of circuit at high temperature

Package

SJP



(1) Cathode

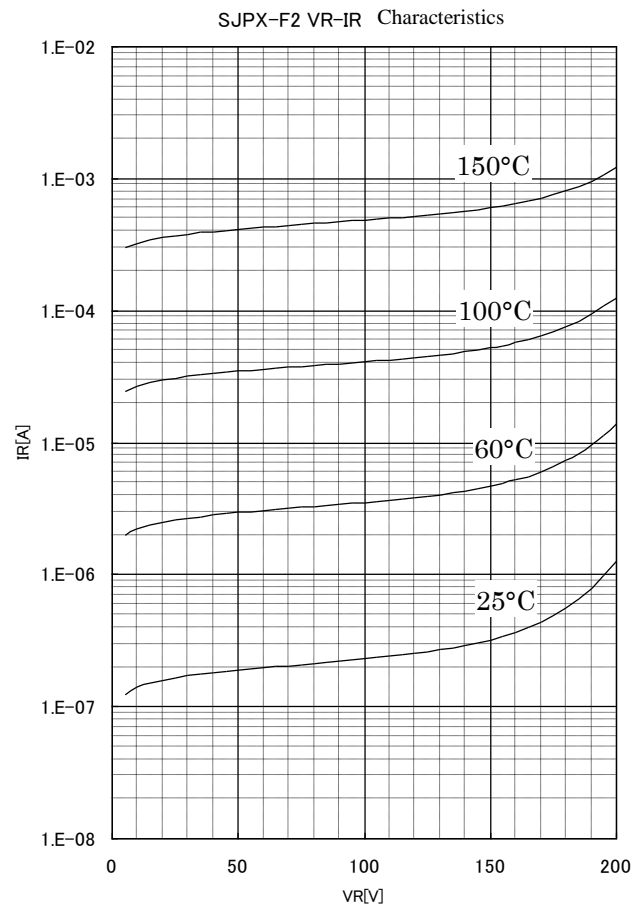
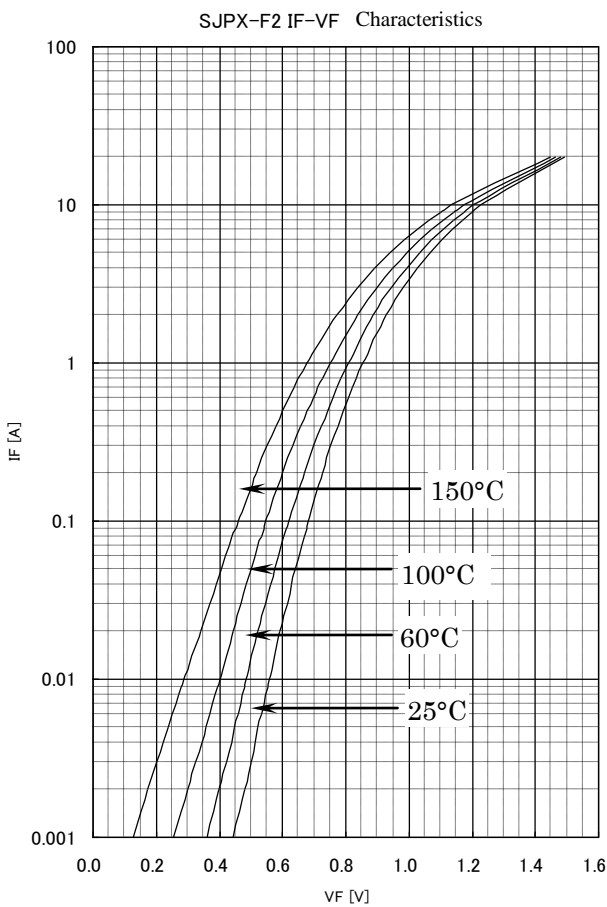
(2) Anode

Not to Scale

Key Specifications

| Item | Rating | Unit | Conditions |
|-------------|--------|------|-------------|
| V_{RM} | 200 | V | |
| V_F | 0.98 | V | $I_F=1.5A$ |
| $I_{F(AV)}$ | 1.5 | A | |
| t_{rr} | 25 | ns | 100mA/200mA |

Typical Characteristics



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Absolute maximum ratings

| No. | Item | Symbol | Unit | Rating | Conditions |
|-----|--------------------------------|-------------|-------------|------------|--------------------------|
| 1 | Transient Peak Reverse Voltage | V_{RSM} | V | 200 | |
| 2 | Peak Reverse Voltage | V_{RM} | V | 200 | |
| 3 | Average Forward Current | $I_{F(AV)}$ | A | 1.5 | |
| 4 | Peak Surge Forward Current | I_{FSM} | A | 30 | Half sine-wave, one shot |
| 5 | I^2t Limiting Value | I^2t | A^2s | 4.5 | $1ms \leq t \leq 10ms$ |
| 6 | Junction Temperature | T_j | $^{\circ}C$ | -40 to 150 | |
| 7 | Storage Temperature | T_{stg} | $^{\circ}C$ | -40 to 150 | |

Electrical characteristics (Ta=25°C, unless otherwise specified)

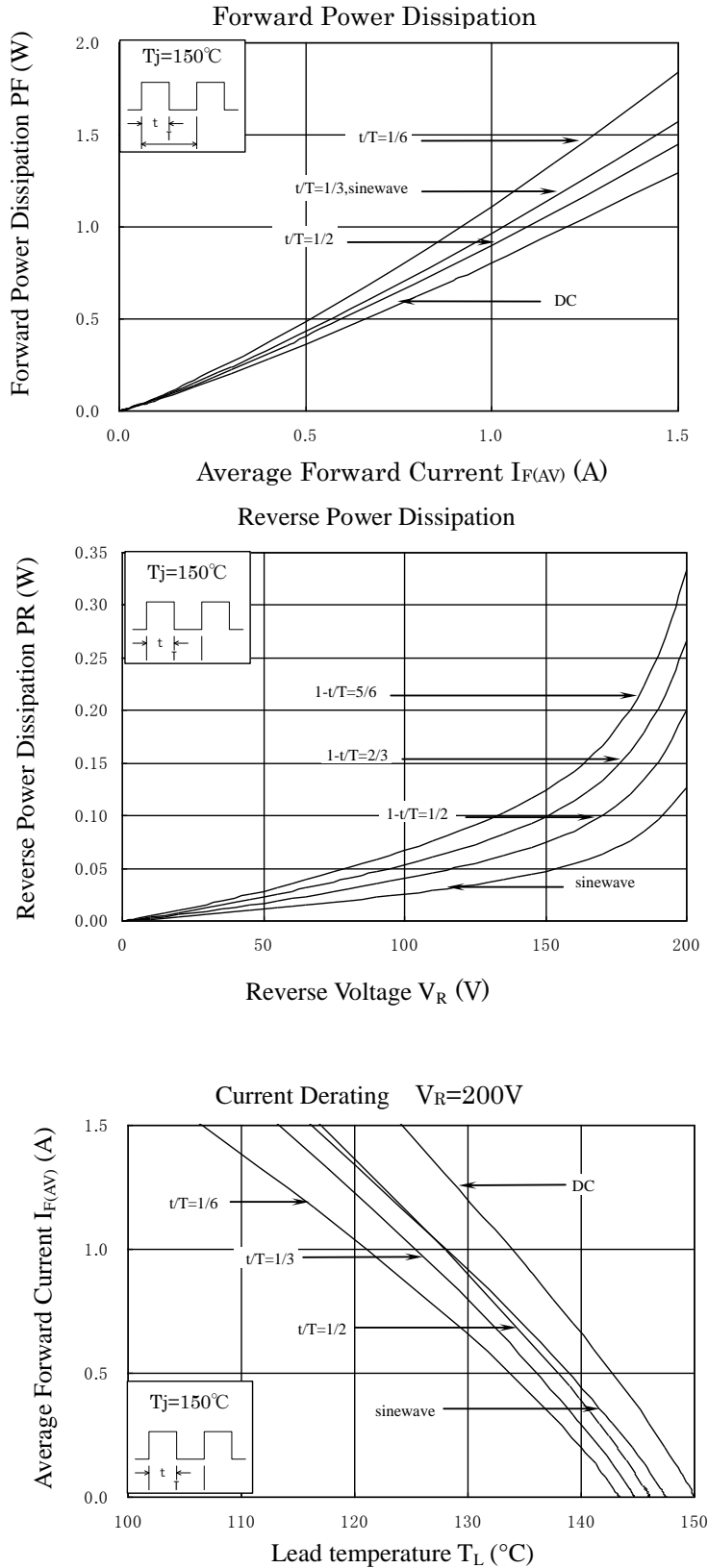
| No. | Item | Symbol | Unit | Value | Conditions |
|-----|--|---------------|---------------|-----------|--|
| 1 | Forward Voltage Drop | V_F | V | 0.98 max. | $I_F=1.5A$ |
| 2 | Reverse Leakage Current | I_R | μA | 10 max. | $V_R=V_{RM}$ |
| 3 | Reverse Leakage Current Under High Temperature | $H \cdot I_R$ | mA | 2.0 max. | $V_R=V_{RM}, T_j=150^{\circ}C$ |
| 4 | Reverse Recovery Time | t_{rr1} | ns | 30 max. | $I_F=I_{RP}=100mA$ 90% Recovery point, $T_j=25^{\circ}C$ |
| | | t_{rr2} | ns | 25 max. | $I_F=100mA, I_{RP}=200mA$ 75% Recovery point, $T_j=25^{\circ}C$ |
| 5 | Thermal Resistance | $R_{th(j-c)}$ | $^{\circ}C/W$ | 20 max. | Between Junction and Lead |

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Characteristics

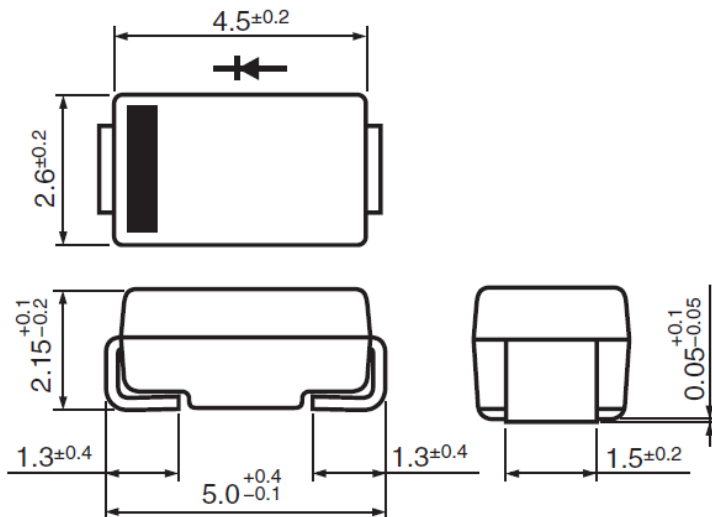


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External Dimensions

SJP



NOTES:

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

Connection Diagram



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DSGN-CEZ-16001