

SJPL-L4

Fast Recovery Diode

May. 2016

General Description

SJPL-L4 realizes low leakage current at high temperature. High efficiency is achieved by reducing the loss of circuit at high temperature.

Applications

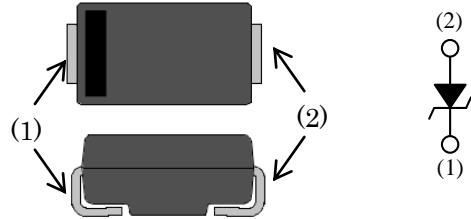
- DC-DC converters
- AC adapter
- High frequency rectification circuit

Features

- Super-high speed FRD
- Low leakage current at high temperature

Package

SJP



(1) Cathode

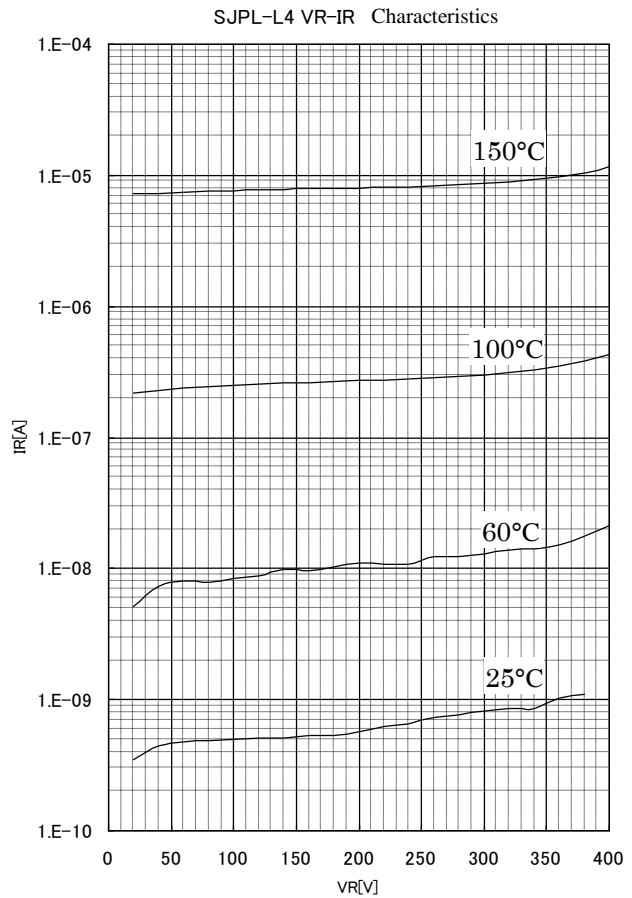
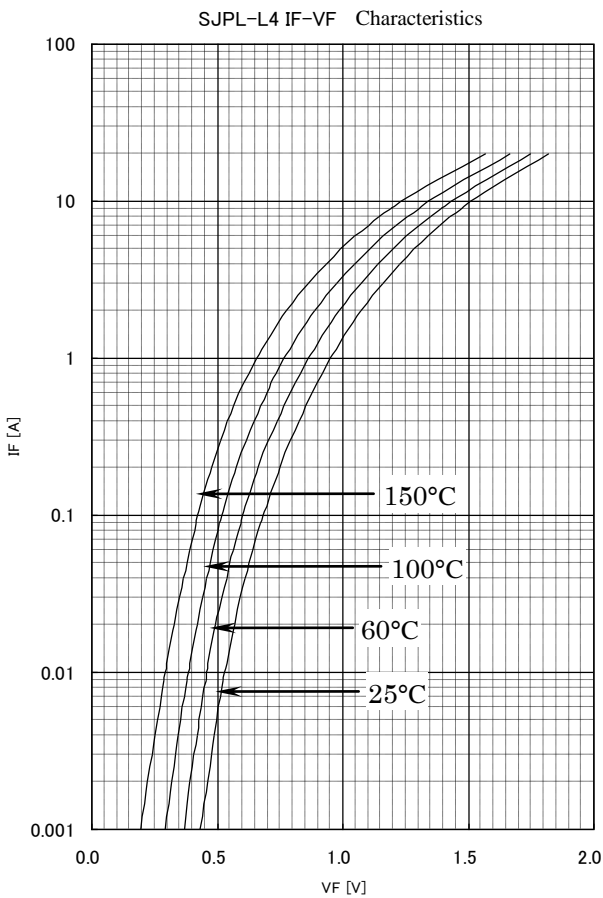
(2) Anode

Not to Scale

Key Specifications

Item	Rating	Unit	Conditions
V_{RM}	400	V	
V_F	1.3	V	$I_F=3.0A$
$I_{F(AV)}$	3.0	A	
t_{rr}	35	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	400	
2	Peak Reverse Voltage	V_{RM}	V	400	
3	Average Forward Current	$I_{F(AV)}$	A	3.0	
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	1.3 max.	$I_F=3.0A$
2	Reverse Leakage Current	I_R	μA	50 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H \cdot I_R$	μA	100 max.	$V_R=V_{RM}, T_j=150^{\circ}C$
4	Reverse Recovery Time	t_{rr1}	ns	50 max.	$I_F=I_{RP}=100mA$ 90% Recovery point, $T_j=25^{\circ}C$
		t_{rr2}	ns	35 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

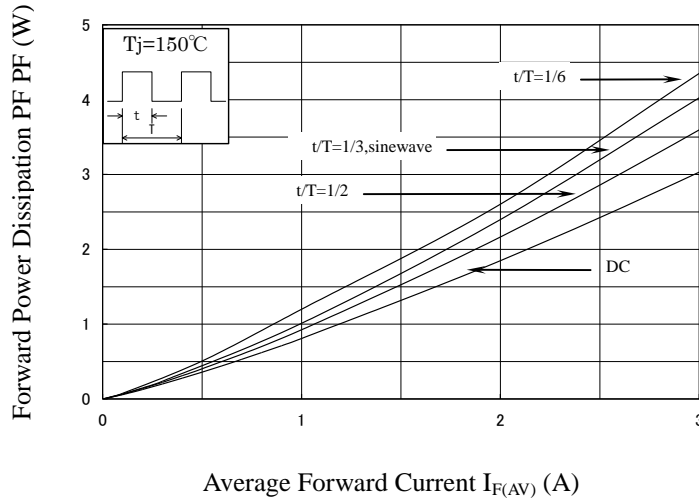
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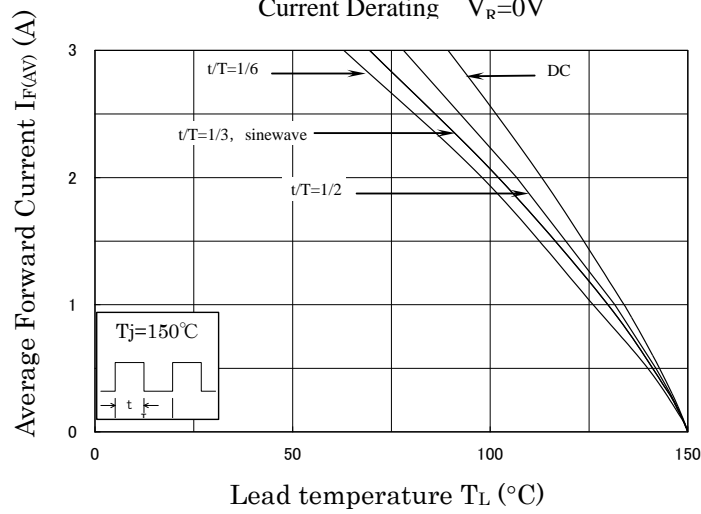
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Characteristics

Forward Power Dissipation



Current Derating $V_R=0\text{V}$

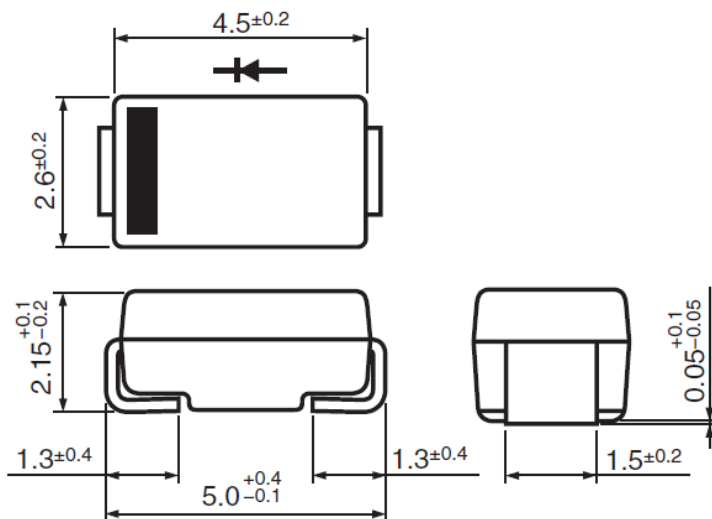


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Outline drawings

- SJP



NOTES:

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

Connection Diagram



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