SANKEN ELECTRIC

AB01B

Mar. 2008

High Voltage Fast Recovery Rectifier

General Description

AB01B is a High Voltage (800V) Fast Recovery Diode.
It is possible to high-speed rectify it though it is a high voltage.

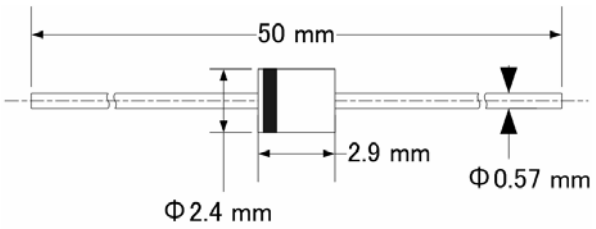
Applications

- DC-DC converters
- Snubber circuits
- High frequency rectification circuit

Features

- High Voltage 800Vguarantee
- Super-high speed & low noise switching.

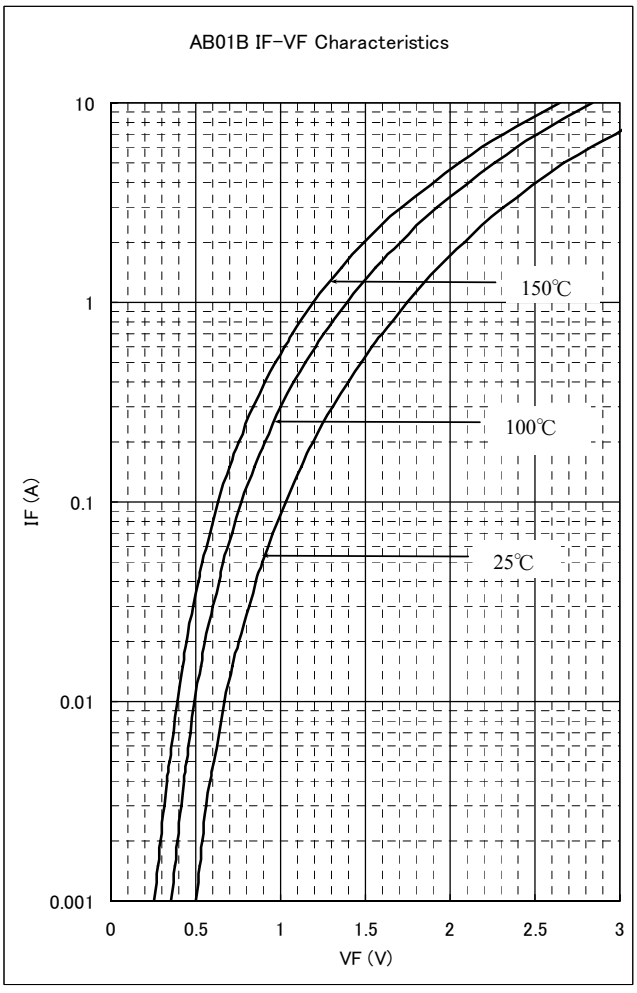
Package

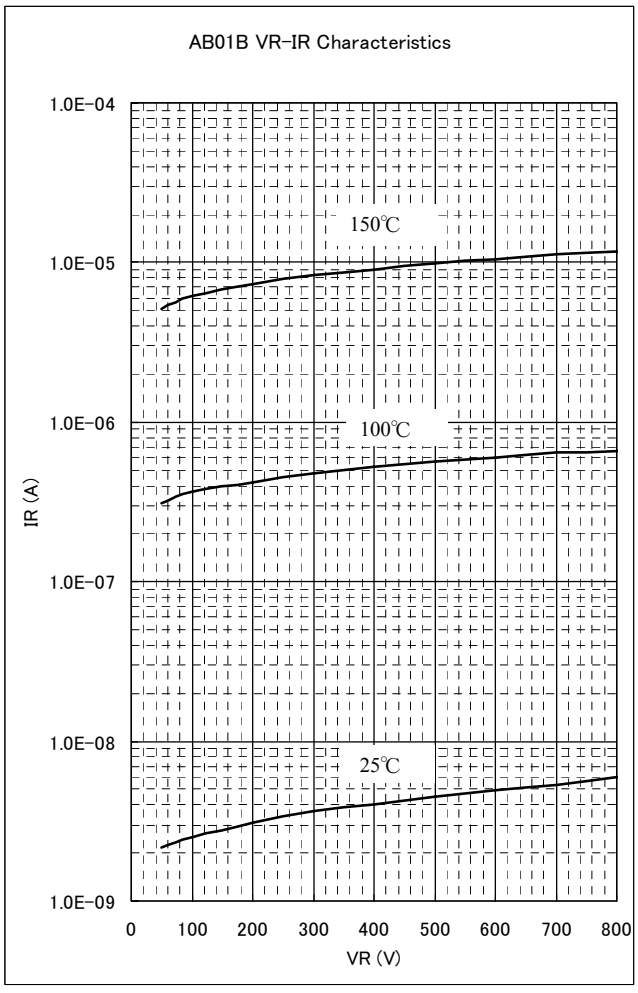


Key Specifications

Symbol	Unit	Rating	Conditions
V_{RM}	V	800	
V_F	V	2.0	I_F=0.5A
$I_{F(AV)}$	A	0.5	
trr	ns	200	

Typical Characteristics





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✶ Absolute maximum ratings

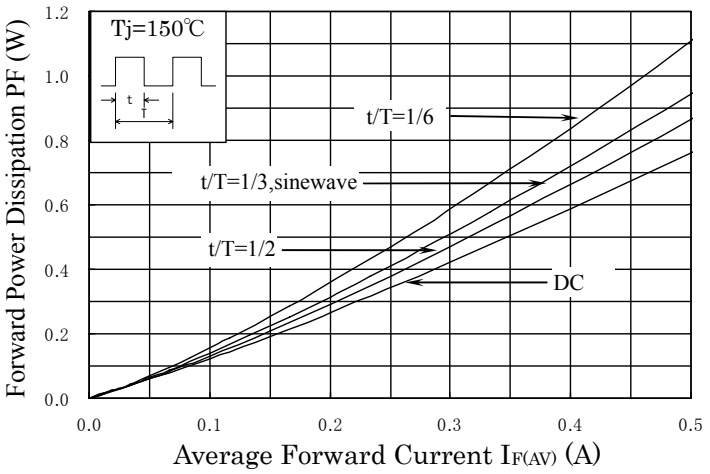
No.	Parameter	Symbol	Unit	Rating	Conditions
1	Transient Peak Reverse Voltage	V_{RSM}	V	800	
2	Peak Reverse Voltage	V_{RM}	V	800	
3	Average Forward Current	$I_{F(AV)}$	A	0.5	
4	Peak Surge Forward Current	I_{FSM}	A	10	Half sinewave, one shot
5	I^2t Limiting Value	I^2t	A^2s	0.5	1msec<t<10msec
6	Junction Temperature	T_j	°C	-40 to +150	
7	Storage Temperature	T_{stg}	°C	-40 to +150	

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

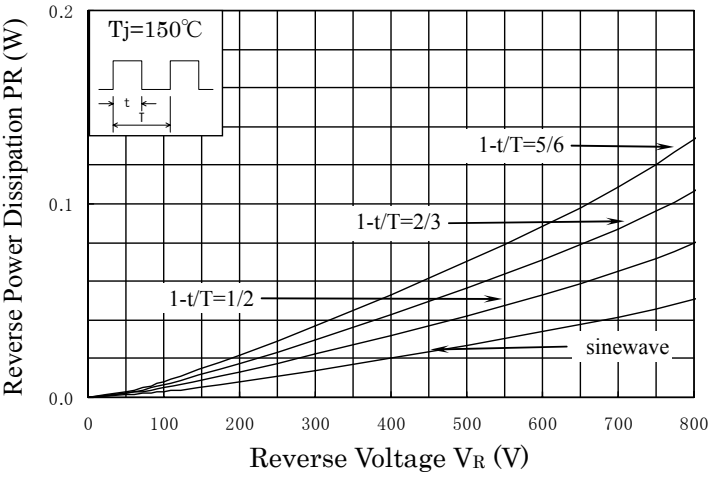
No.	Parameter	Symbol	Unit	Rating	Conditions
1	Forward Voltage Drop	V_F	V	2.0 max.	I_F=0.5A
2	Reverse Leakage Current	I_R	uA	10 max.	$V_R=V_{RM}$
3	Reverse Leakage Current Under High Temperature	$H•I_R$	uA	200 max.	$V_R=V_{RM}$, T_j=150°C
4	Reverse Recovery Time	$t_{rr}1$	ns	200 max.	$I_F=I_{RP}$=100mA 90% Recovery point, T_j=25°C
		$t_{rr}2$	ns	80 max.	I_F=100mA, I_{RP}=200mA 75% Recovery point, T_j=25°C
5	Thermal Resistance	$R_{th(j-c)}$	°C /W	22 max.	Between Junction and case

✶ **Characteristics**

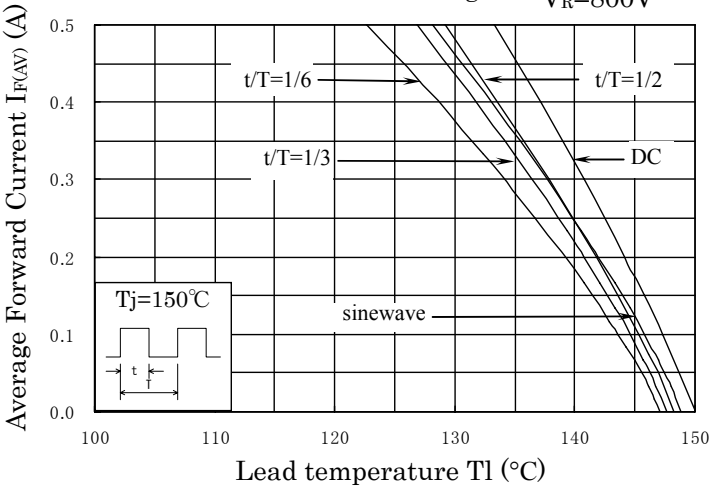
Forward Power Dissipation



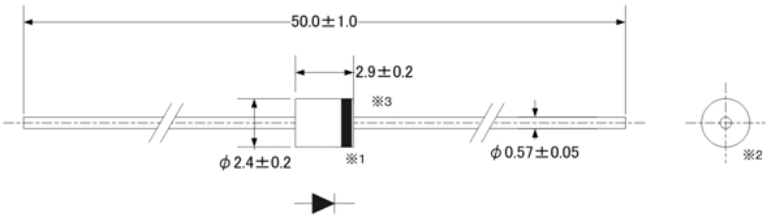
Reverse Power Dissipation



Current Derating VR=800V



✶ **Outline drawings, mm**



*1 The allowance position of Body against the center of whole lead wire is 0.5mm(max.)
*2 The centric allowance of lead wire against center of physical body is 0.2mm(max.)
*3 The burr may exit up to 2mm from the body of lead