JBF310

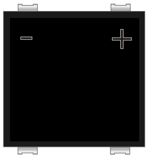
GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage:1000Volts
Forward Current:3.0Amps

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High surge forward current capabulity
- Ideal for automated placement
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

JBF

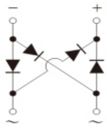


Pb
RoHS
COMPLIANT

HALOGEN
FREE

Mechanical data

- Case:JBF molded plastic body
- Terminals:Plated leads solderable per MIL-STD-750,methode 2026
- Polarity:As marked
- Mounting Position:Any



APPLICATIONS

- Used in high frequency AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Maximum Ratings And Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameters	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	3.0	A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120	A
Rating for fusing(t=8.3ms)	I^2t	59.7	A^2S
Operating junction temperature range	T_J	-55 to 150	℃
Storge temperature range	Tstg	-55 to 150	℃

Electrical Characteristcs（Per diode,T_A=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	I_R=10μA		V_{BR} V_R	1050	–	–	V
Instaneous forward voltage	T_J=25℃	I_F=1.0A	V_F 1)	–	0.85	–	V
		I_F=3.0A		–	0.93	1.00	
	T_J=125℃	I_F=1.0A		–	0.72	–	
		I_F=3.0A		–	0.81	0.87	
Reverse current	T_J=25℃	V_R=1000V	I_R 2)	–	–	5	μA
	T_J=125℃			–	–	250	
Junction capacitance	4V,1MHz		C_J	–	36	–	pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

Thermal Characteristcs

Parameter	Symbol	JBF	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	5.0	℃/W

3.Thermal resistance from per diode junction to case

SEMICONDUCTOR

RATINGS AND CHARACTERISTICS JBF310

Fig.1-Forward Current Derating Curve

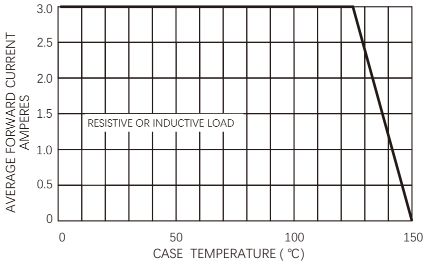


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

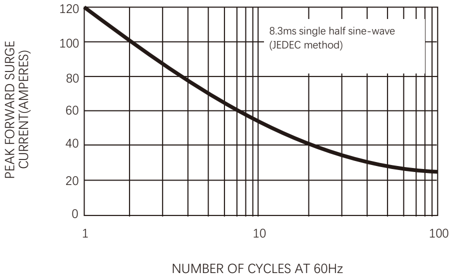


Fig.3-Typical Instantaneous Forward Characteristics

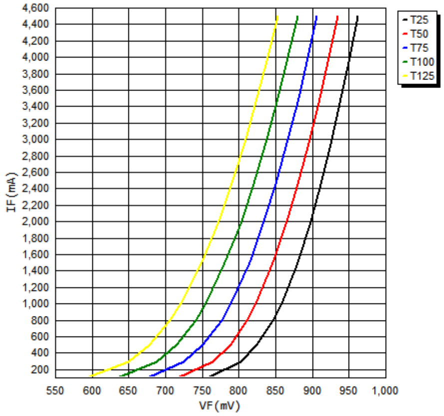
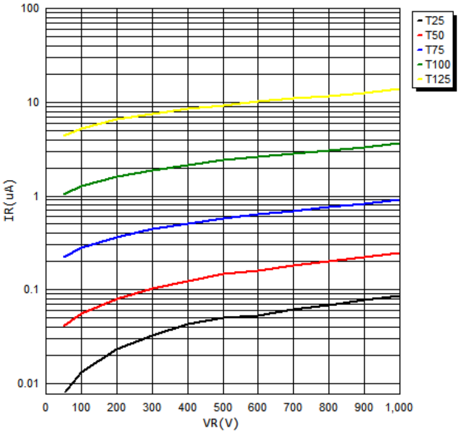
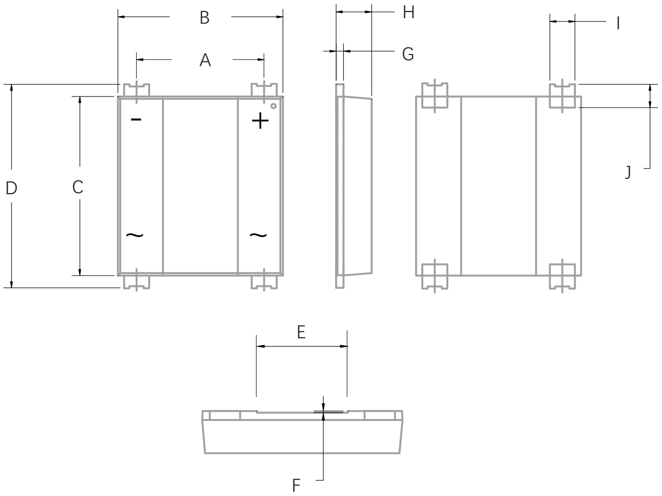


Fig.4-Typical Reverse Characteristics



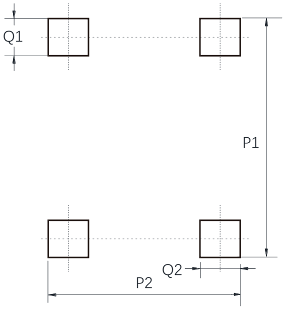
PACKAGE OUTLINE DIMENSIONS

JBF



UNIT:mm		
DIM	MIN	MAX
A	4.80	5.30
B	6.20	7.00
C	7.10	8.20
D	7.90	8.90
E	2.90	3.10
F	0.04	0.08
G	0.15	0.40
H	1.30	1.50
I	0.80	1.20
J	0.70	1.60

Suggested Pad layout



Dimensions in millimeters

Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00

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