

## GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage:1000Volts  
Forward Current:4.0Amps

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High surge forward current capability
- Ideal for automated placement
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Component in accordance to RoHS 2015/863/EU

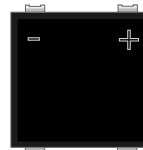
## Mechanical data

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

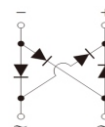
## APPLICATIONS

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

JBF



HALOGEN  
FREE



## 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	$I_{F(AV)}$	4.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method,Total device)	$I_{FSM}$	140	A
Rating for fusing( $t < 8.3ms$ )	$I^2t$	81.3	A <sup>2</sup> S
Operating junction temperature range	$T_j$	-55 to 150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°C

## RATINGS AND CHARACTERISTICS JBF410

### Electrical Characteristics (Per diode, $T_A=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	$I_R=10\mu\text{A}$		$V_{BR}$ $V_R$	1050	–	–	V
Instaneous forward voltage	$T_J=25^\circ\text{C}$	$I_F=1.0\text{A}$	$V_F$ <sup>1)</sup>	–	0.83	–	V
		$I_F=4.0\text{A}$		–	0.93	1.00	
	$T_J=125^\circ\text{C}$	$I_F=1.0\text{A}$		–	0.70	–	
		$I_F=4.0\text{A}$		–	0.81	0.87	
Reverse current	$T_J=25^\circ\text{C}$	$V_R=1000\text{V}$	$I_R$ <sup>2)</sup>	–	–	5	$\mu\text{A}$
	$T_J=125^\circ\text{C}$			–	–	250	
Junction capacitance	4V, 1MHz		$C_J$	–	49	–	pF

Notes: 1.Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle

2.Pulse test: pulse width  $\leq 40\text{ms}$

### Thermal Characteristics

Parameter	Symbol	JBF	Unit
Typical thermal resistance <sup>3)</sup>	$R_{\theta JC}$	5.0	$^\circ\text{C}/\text{W}$

3.Thermal resistance from per diode junction to case

# RATINGS AND CHARACTERISTICS JBF410

Fig.1-Forward Current Derating Curve

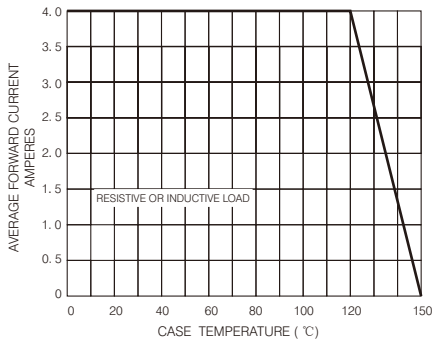


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

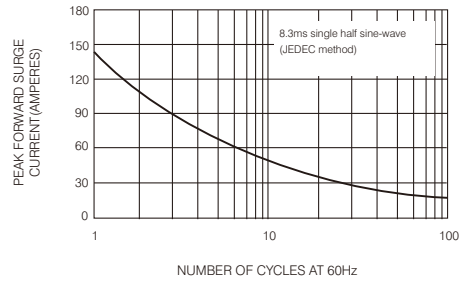


Fig.3-Typical Instantaneous Forward Characteristics

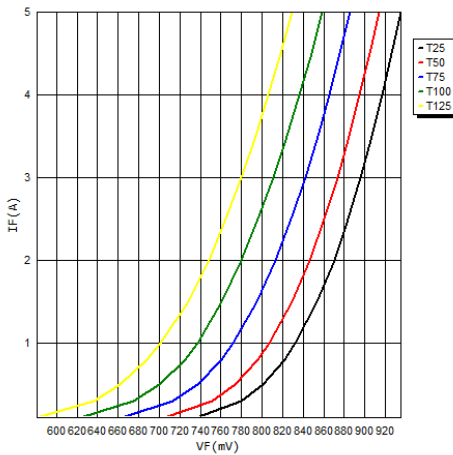
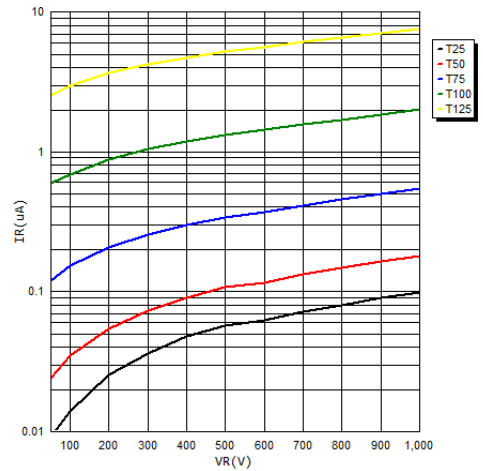
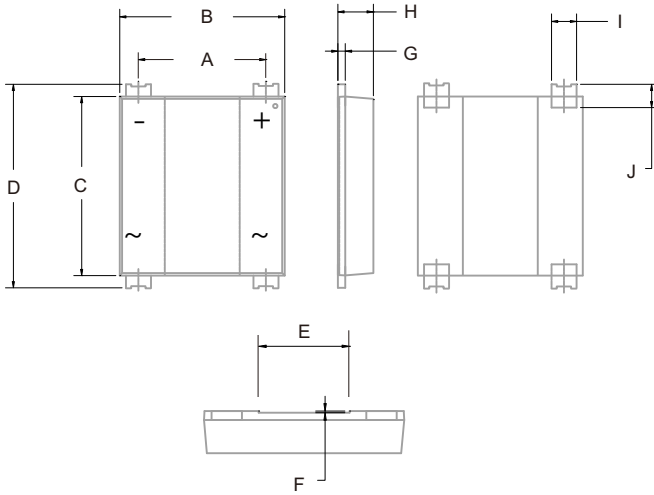


Fig.4-Typical Reverse Characteristics



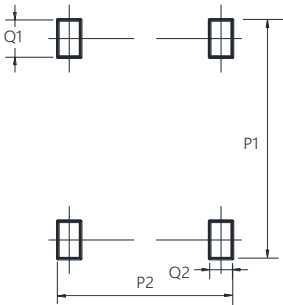
# PACKAGE OUTLINE DIMENSIONS

## 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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