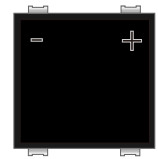
SEMICONDUCTOR

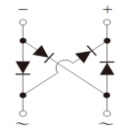
JBF406L

GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage:600Volts
Forward Current:4.0Amps

JBF





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,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}	600	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}	220	A
Rating for fusing(t<8.3ms)	I^2t	201	A^2S
Operating junction temperature range	T_J	-55 to 150	℃
Storge temperature range	Tstg	-55 to 150	℃

RATINGS AND CHARACTERISTICS JBF406L

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	620	-	-	V
Instaneous forward voltage	T_J=25℃	I_F=1.0A	V_F 1)	-	0.81	-	V
		I_F=4.0A		-	0.87	0.95	
	T_J=125℃	I_F=1.0A		-	0.67	-	
		I_F=4.0A		-	0.75	0.83	
Reverse current	T_J=25℃	V_R=600V	I_R 2)	-	-	5	μA
	T_J=125℃			-	-	250	
Junction capacitance	4V,1MHz		C_J	-	83	-	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

RATINGS AND CHARACTERISTICS JBF406L

Fig.1-Forward Current Derating Curve

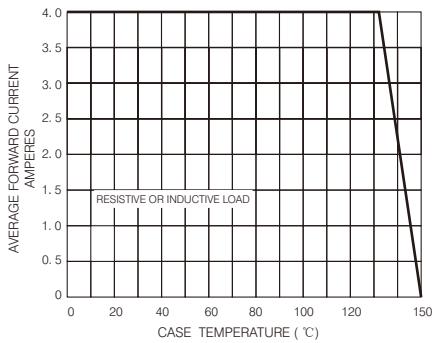


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

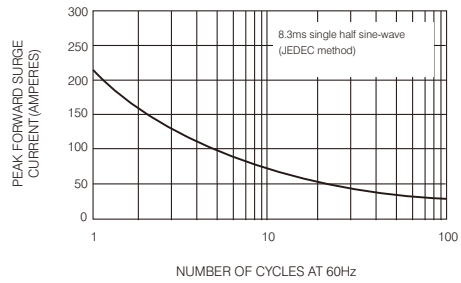


Fig.3-Typical Instantaneous Forward Characteristics

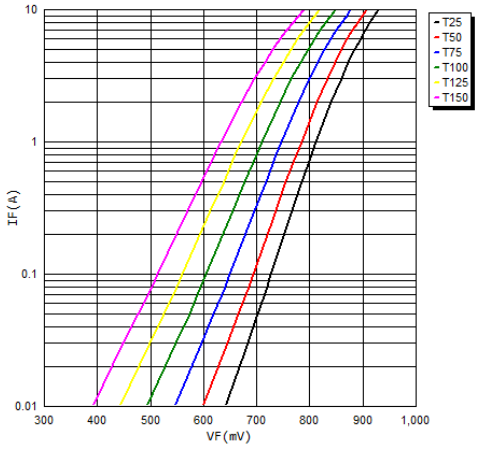
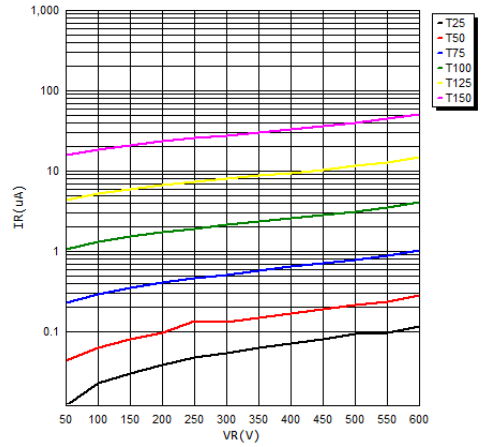
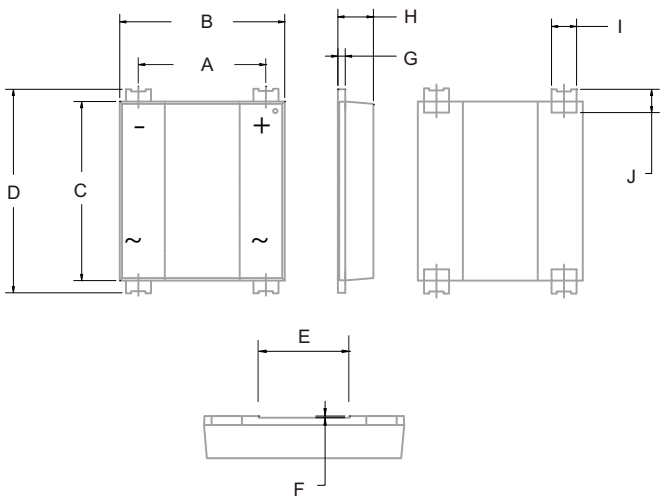


Fig.4-Typical Reverse Characteristics



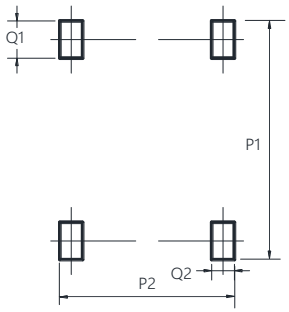
PACKAGE OUTLINE DIMENSIONS

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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