

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

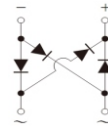
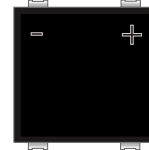
APPLICATIONS

- 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	RJBF301	RJBF302	RJBF304	RJBF306	RJBF308	RJBF310	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	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, Total device)	I_{FSM}	120						A
Rating for fusing (t < 8.3ms)	I^2t	59.7						A ² S
Operating junction temperature range	T_j	-55 to 150						°C
Storage temperature range	T_{stg}	-55 to 150						°C

RATINGS AND CHARACTERISTICS OF RJBF301 THRU RJBF310

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

Parameter	Test Conditions	Symbol	RJBF301	RJBF302	RJBF304	RJBF306	RJBF308	RJBF310	Unit
Instaneous forward voltage	$I_F=3.0\text{A}$	$V_F^{1)}$	1.25						V
Reverse recovery time	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	t_{rr}	150			250	500		ns
Reverse current	$V_R=V_{RRM}$	$T_A=25^\circ\text{C}$	5						μA
		$T_A=100^\circ\text{C}$	70						
		$T_A=125^\circ\text{C}$	250						

Notes: 1.Pulse test: 300 μs pulse width, 1% duty cycle

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

Thermal Characteristics

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

3.Thermal resistance from per diode junction to case

RATINGS AND CHARACTERISTICS OF RJBF301 THRU RJBF310

Fig.1-Forward Current Derating Curve

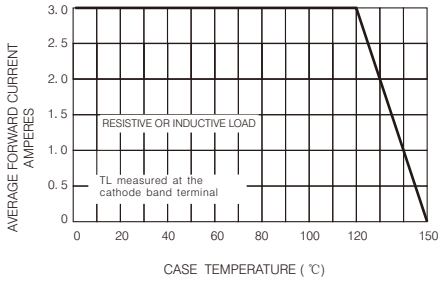


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

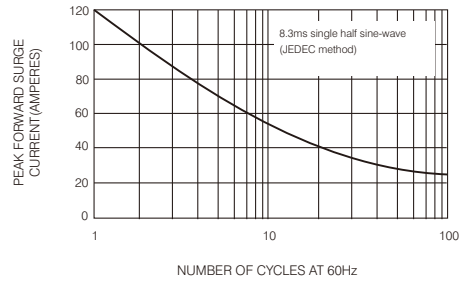


Fig.3-Typical Instantaneous Forward Characteristics

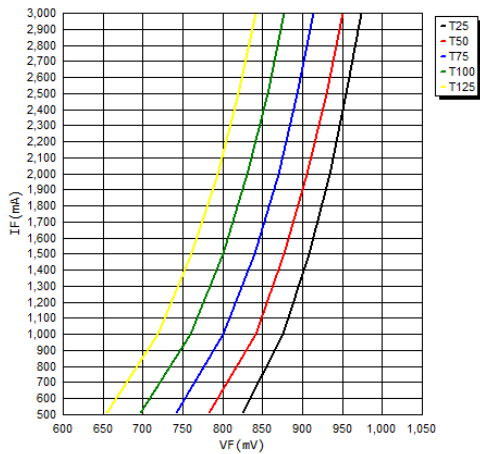
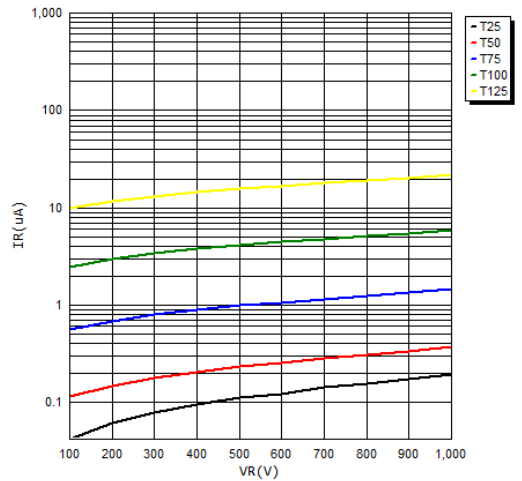
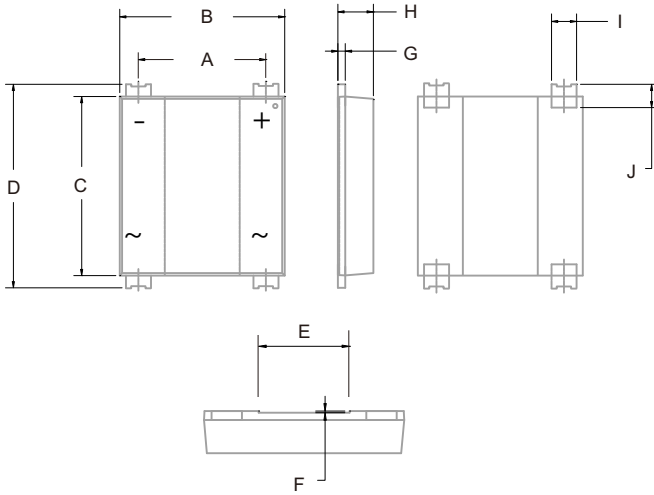


Fig.4-Typical Reverse Characteristics



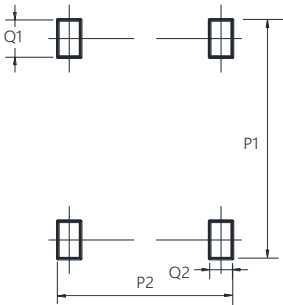
PACKAGE OUTLINE DIMENSIONS

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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