# JBF216

## HIGH FORWARD SURGE SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage: 1600 Volts
Forward Current: 2.0 Amps

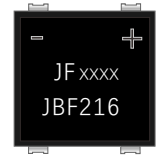
SEMICONDUCTOR

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Very high forward surge current capability
- Low forward voltage drop,High current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

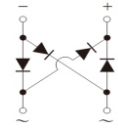
**HALOGEN FREE**

JBF




Marking:

JF:Logo
xxxx:Date code
JBF216:Type
+-:Polarity



## MECHANICAL DATA

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

## TYPICAL APPLICATIONS

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

## MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise specified )

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 1600 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 2.0 | A |
| Peak forward surge current 8.3ms single hanf Sine-wave | $I_{FSM}$ | 35 | A |
| Rating for fusing (t=8.3ms) | $I^2t$ | 5 | $A^2s$ |
| Operating junction temperature range | $T_J$ | -55 to+150 | ℃ |
| Storage temperature range | Tstg | -55 to+150 | ℃ |

## ELECTRICAL CHARACTERISTICS ($T_J$=25℃ Unless otherwise noted)

| Parameter | Test Conditions | | Symbol | Min. | Typ. | Max | Unit |
|---|---|---|---|---|---|---|---|
| Breakdown voltage<br>Blocking voltage | $I_R$=100μA | | $V_{BR}$<br>$V_R$ | 1600 | - | - | V |
| Instaneous forward voltage | $T_J$=25℃ | $I_F$=0.5A | $V_F$ 1) | - | 0.85 | - | V |
| | | $I_F$=1.0A | | - | 0.89 | - | |
| | | $I_F$=2.0A | | - | 0.95 | 1.05 | |
| | $T_J$=125℃ | $I_F$=0.5A | | - | 0.73 | - | |
| | | $I_F$=1.0A | | - | 0.78 | - | |
| | | $I_F$=2.0A | | - | 0.86 | - | |
| Reverse current | $T_J$=25℃ | $V_R$=1600V | $I_R$ 2) | - | - | 5 | μA |
| | $T_J$=100℃ | | | - | - | 25 | μA |
| | $T_J$=125℃ | | | - | - | 100 | |
| Junction capacitance | 4V,1MHz | | $C_J$ | - | 16 | - | pF |

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

2.Pulse test: pulse width≤40ms

## THERMAL CHARACTERISTCS

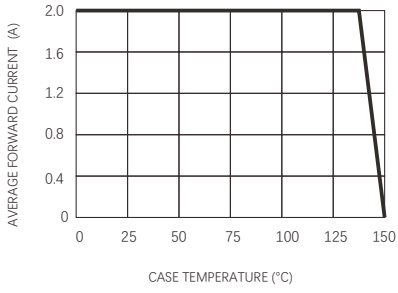
| Parameter | Symbol | JBF | Unit |
|---|---|---|---|
| Typical thermal resistance 3) | RθJC | 5.0 | ℃/W |

3.Thermal resistance from per diode junction to case

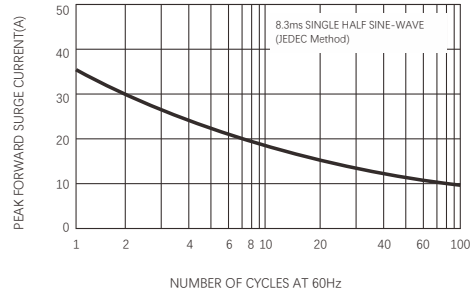
## AVAILABALE PACK INFORMATION

| Product code | Pack | Reel Size (mm ) | Quantity (pcs/reel) | Quantity (reel/box) | Quantity (box/carton) | Quantity (K/carton) |
|---|---|---|---|---|---|---|
| JBF216-JBF | T/R | Φ330 | 3000 | 2 | 8 | 48 |

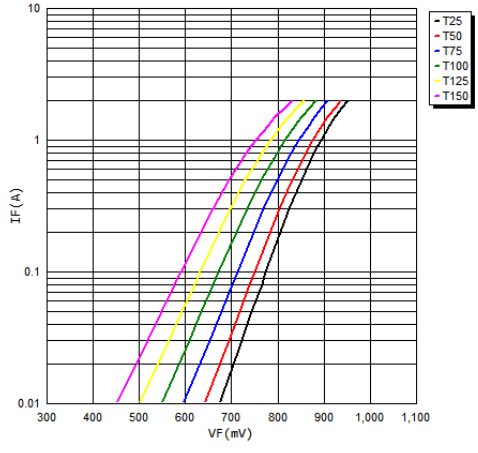
## FIG.1-FORWARD CURRENT DERATING CURVE



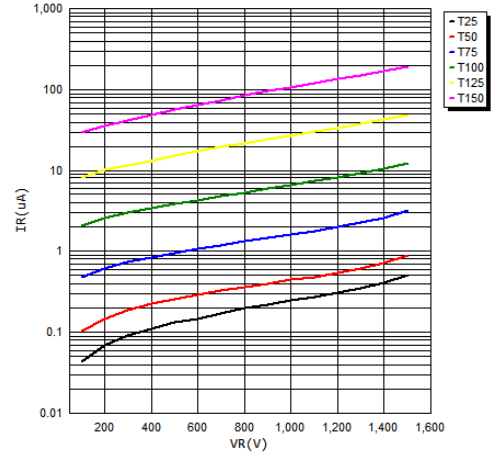

## FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



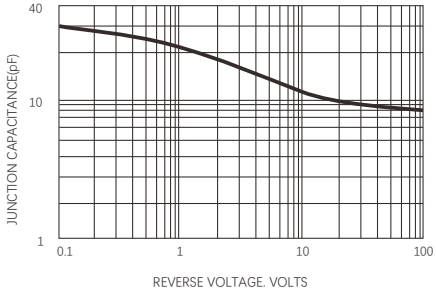

## FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS




## FIG.4-TYPICAL REVERSE CHARACTERISTICS



## FIG.5-TYPICAL JUNCTION CAPACITANCE




## PACKAGE OUTLINE DIMENSIONS

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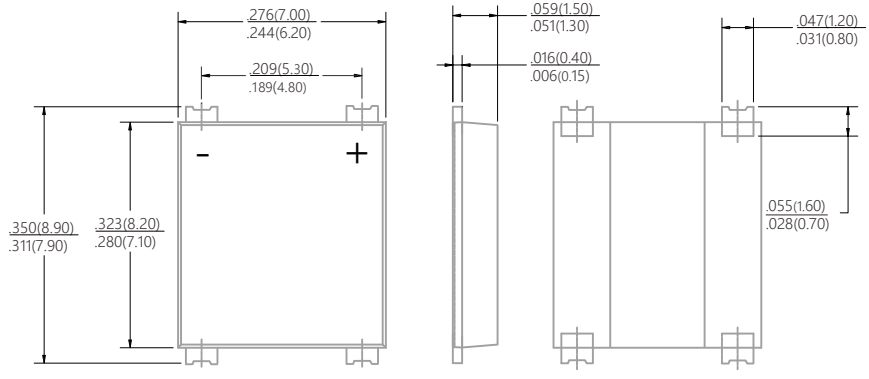
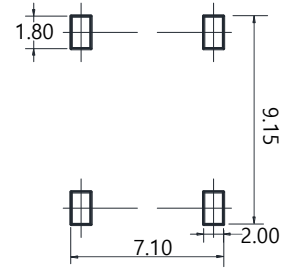



Suggested Pad layout




Dimensions in millimeters

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