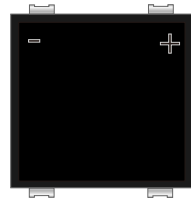
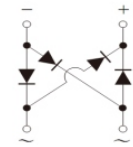


Features

- 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



Package: BF



Schematic Diagram

Mechanical Data

- Case:BF 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.

Maximum Ratings

(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 ² S |
| Typical Thermal Resistance ¹ | $R_{\theta JC}$ | 5.0 | °C/W |
| Operating Junction Temperature Range | T_J | -55 to +150 | °C |
| Storage Temperature Range | T_{stg} | -55 to +150 | °C |

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

| Parameter | Symbol | Test Conditions | | Min. | Typ. | Max. | Unit |
|---|----------|-------------------------|--------------------|------|------|------|---------------|
| Breakdown Voltage | V_{BR} | $I_R=10\mu\text{A}$ | | 1050 | - | - | V |
| Blocking Voltage | V_R | | | | | | |
| Instaneous Forward Voltage ¹ | V_F | $T_J=25^\circ\text{C}$ | $I_F=1.0\text{A}$ | - | 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 ² | I_R | $T_J=25^\circ\text{C}$ | $V_R=1000\text{V}$ | - | - | 5 | μA |
| | | $T_J=125^\circ\text{C}$ | | - | - | 250 | |
| Junction Capacitance | C_J | 4V, 1MHz | | - | 49 | - | pF |

Notes:

1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Pulse test: pulse width $\leq 40\text{ms}$

Thermal Characteristics (Per diode)

| Parameter | Symbol | BF | Unit |
|--|-----------------|-----|--------------------|
| Typical Thermal Resistance, Junction to Case | $R_{\theta JC}$ | 5.0 | $^\circ\text{C/W}$ |

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

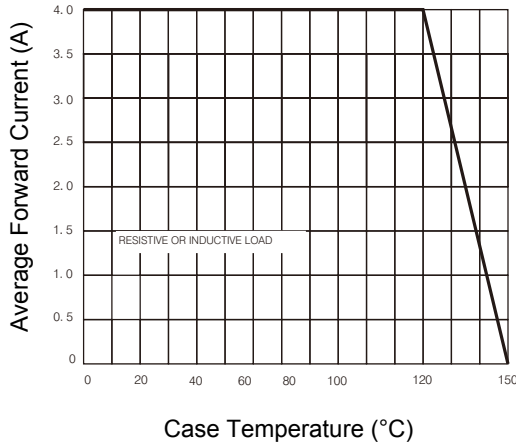


Figure 1. Forward Current Derating Curve

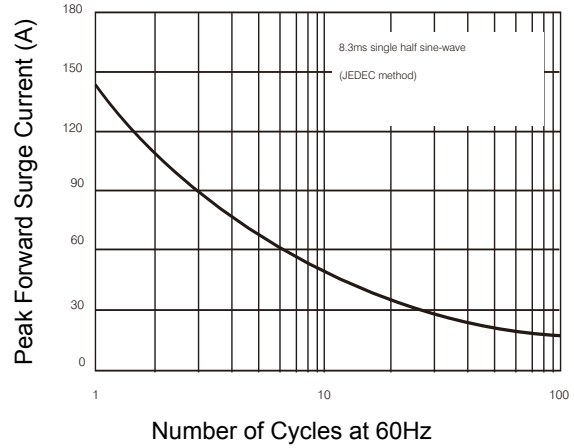


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

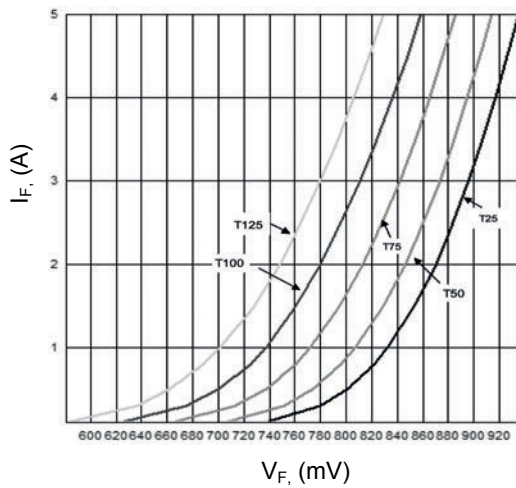


Figure 3. Typical Instantaneous Forward Characteristics

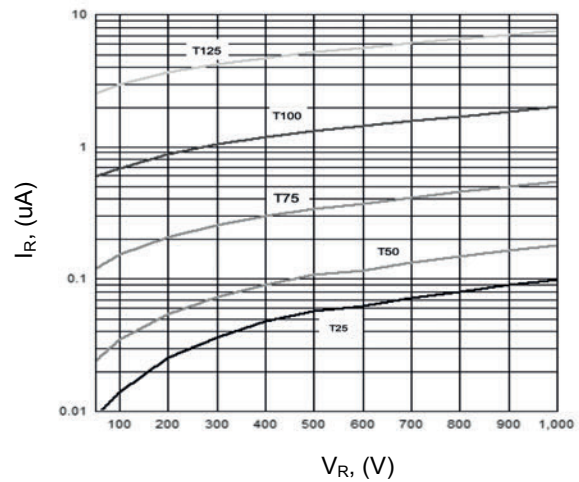
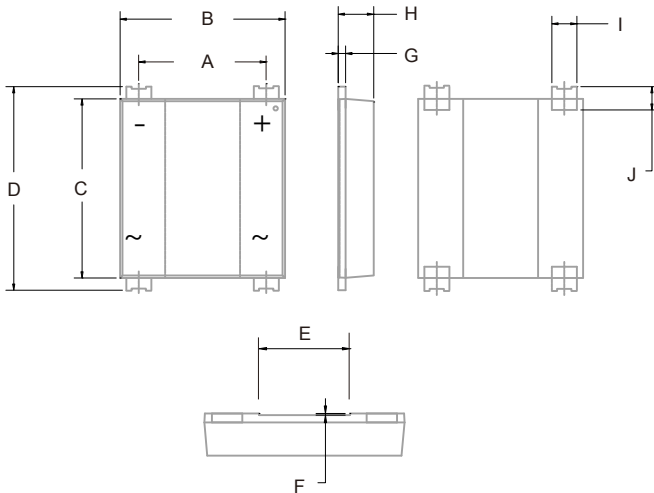


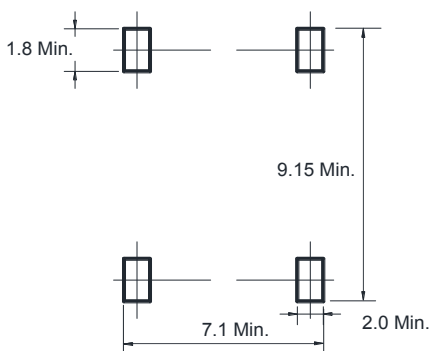
Figure 4. Typical Reverse Characteristics

Package Outline Dimensions (BF)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 4.80 | 5.30 | 0.189 | 0.209 |
| B | 6.20 | 7.00 | 0.244 | 0.276 |
| C | 7.10 | 8.20 | 0.280 | 0.323 |
| D | 7.90 | 8.90 | 0.311 | 0.350 |
| E | 2.90 | 3.10 | 0.114 | 0.122 |
| F | 0.04 | 0.08 | 0.002 | 0.003 |
| G | 0.15 | 0.40 | 0.006 | 0.016 |
| H | 1.30 | 1.50 | 0.051 | 0.059 |
| I | 0.80 | 1.20 | 0.031 | 0.047 |
| J | 0.70 | 1.60 | 0.028 | 0.063 |

Recommended Pad Layout



- Note:
1. Dimensions in millimeters
 2. The pad layout is for reference