

FEATURES:

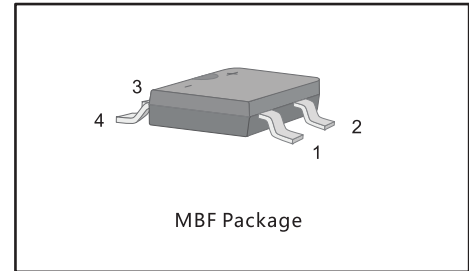
- Glass Passivated Chip Junction
- Reverse Voltage - 40 to 200 V
- Forward Current - 2 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 75mg 0.0024oz

PINNING

| PIN | DESCRIPTION |
|-----|----------------------|
| 1 | Input Pin (~) |
| 2 | Input Pin (~) |
| 3 | Output Anode (+) |
| 4 | Output Cathode (-) |



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | MB24F | MB26F | M28F | MB210F | MB220F | Units |
|--|-----------------|------------|-------|------|----------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 40 | 60 | 80 | 100 | 200 | V |
| Maximum RMS voltage | V_{RMS} | 28 | 42 | 56 | 70 | 140 | V |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 60 | 80 | 100 | 200 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 2.0 | | | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 50 | | 40 | | | A |
| Max Instantaneous Forward Voltage at 2 A | V_F | 0.55 | 0.70 | 0.85 | | | V |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$ | I_R | 0.5 10 | | | 0.3 5 | | mA |
| Typical Junction Capacitance ¹⁾ | C_j | 220 | 80 | | | | pF |
| Typical Thermal Resistance ²⁾ | $R_{\theta JA}$ | 115 | | | | | °C/W |
| Operating Junction Temperature Range | T_j | -55 ~ +125 | | | | | °C |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | | | | | °C |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 1.3mm² copper pad.

Fig.1 Forward Current Derating Curve

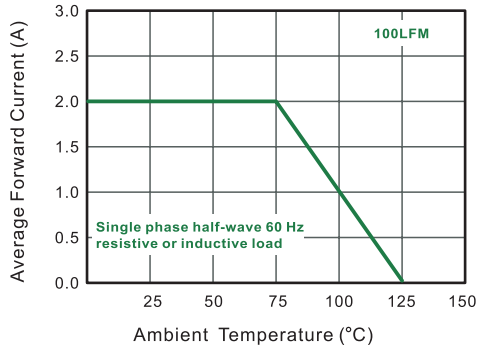


Fig.2 Typical Reverse Characteristics

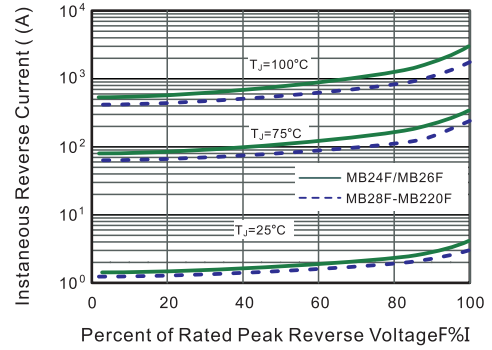


Fig.3 Typical Forward Characteristic

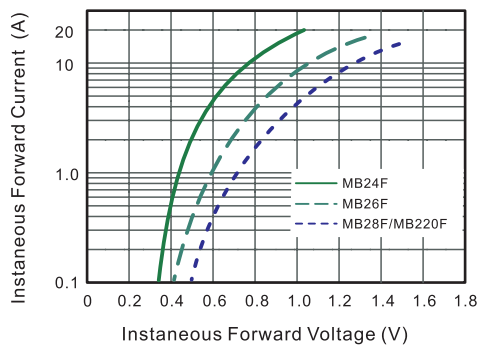


Fig.4 Typical Junction Capacitance

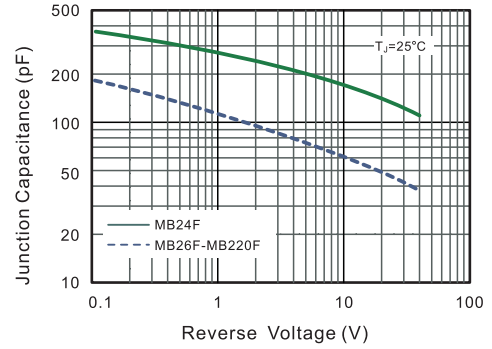
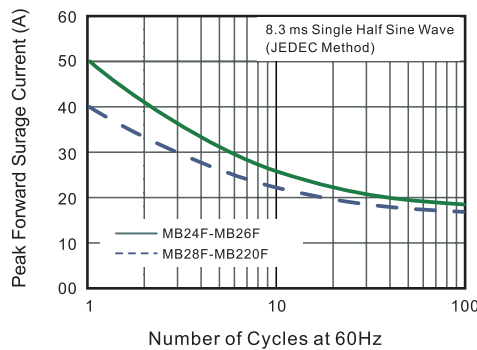


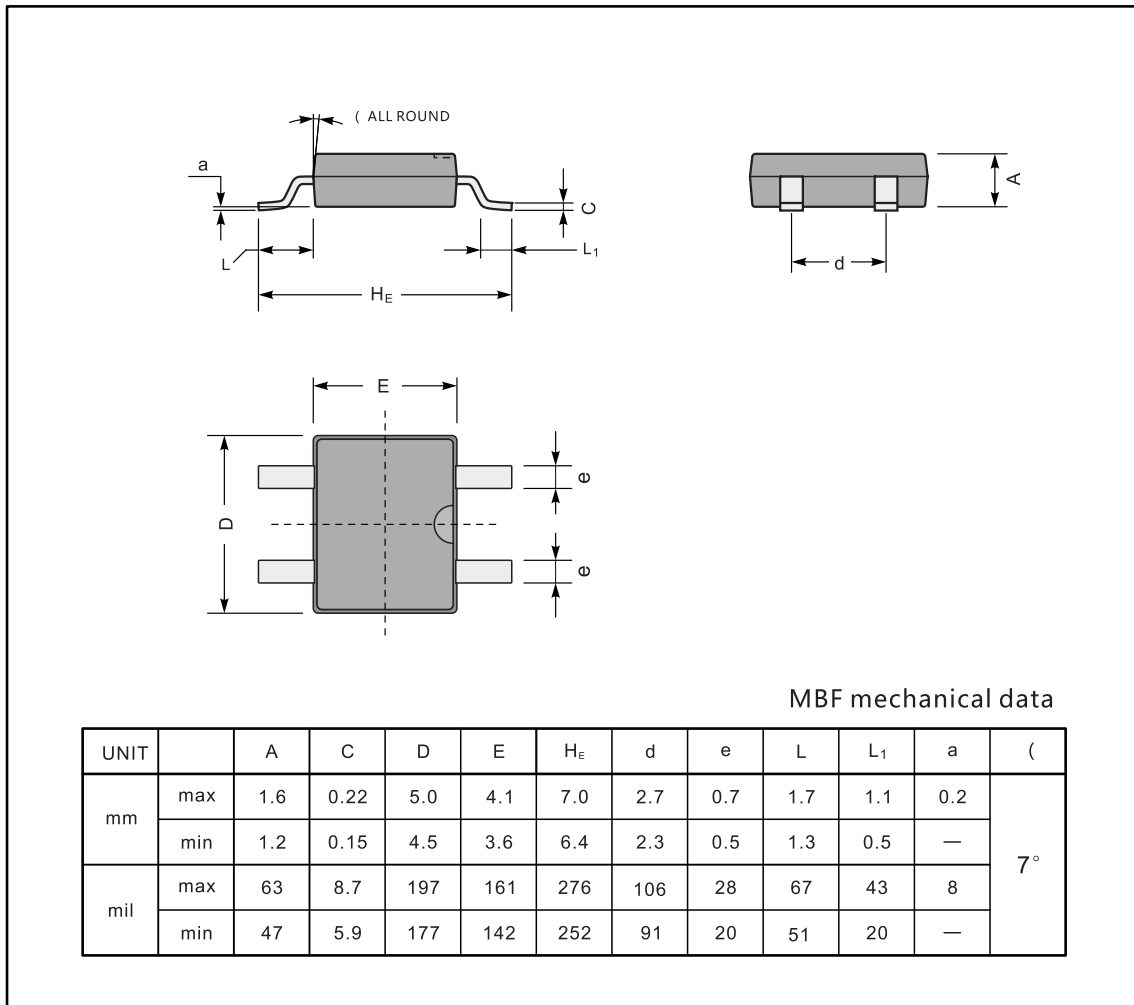
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



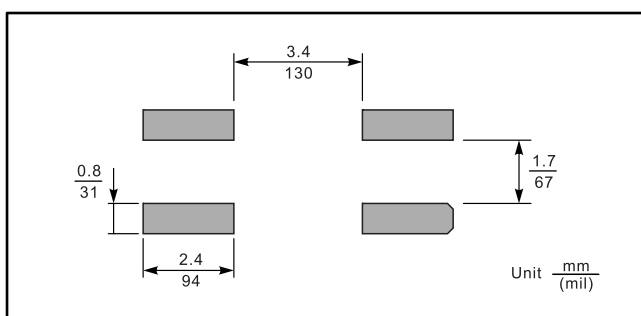
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

MBF



The recommended mounting pad size



Marking

| Type number | Marking code |
|-------------|--------------|
| MB24F | MB24F |
| MB26F | MB26F |
| MB28F | MB28F |
| MB210F | MB210F |
| MB220F | MB220F |

