



Major Ratings and Characteristics

| | |
|--------------------|------------------------------|
| $I_{F(AV)}$ | 1.0 A |
| V_{RRM} | 20 V to 100 V |
| I_{FSM} | 30 A |
| V_F | 0.50 V, 0.55V, 0.70 V, 0.85V |
| $T_j \text{ max.}$ | 125 °C |

Patent Pending

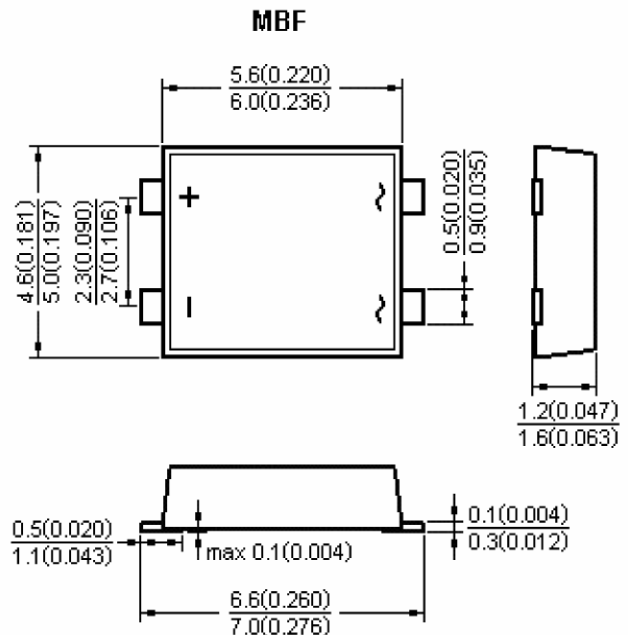


Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Data

- **Case:** MBF molded plastic body over Schottky barrier chips
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Polarity symbols marked on body



Dimensions in millimeters and (inches)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

($T_A = 25\text{ °C}$ unless otherwise noted)

| | Symbol | KMB12F | KMB14F | KMB16F | KMB18F | KMB110F | UNIT |
|---|------------------------------------|-------------|--------|--------|--------|---------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | V |
| Maximum average forward rectified current 0.2×0.2"(5.0×5.0mm)copper pad area | $I_{F(AV)}$ | 1.0 | | | | | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 30 | | | | | A |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.50 | 0.55 | 0.70 | 0.85 | | V |
| Maximum DC reverse current at Rated DC blocking voltage | I_R | 0.5 20 | | | | | mA |
| Typical Junction Capacitance at 4.0V, 1.0MHz | C_J | 250 | | | 125 | | pF |
| Typical Thermal resistance (Note1) | $R_{\theta JA}$ $R_{\theta JL}$ | 85 20 | | | | | °C/W |
| Operating junction temperature range | T_J | -55 to +125 | | | | | °C |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | °C |

Note: 1. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2×0.2"(5.0×5.0mm)copper pad areas.



KMB12F-KMB110F

Schottky Surface Mount Flat Bridge Rectifier

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

Fig.1 Forward Current Derating Curve

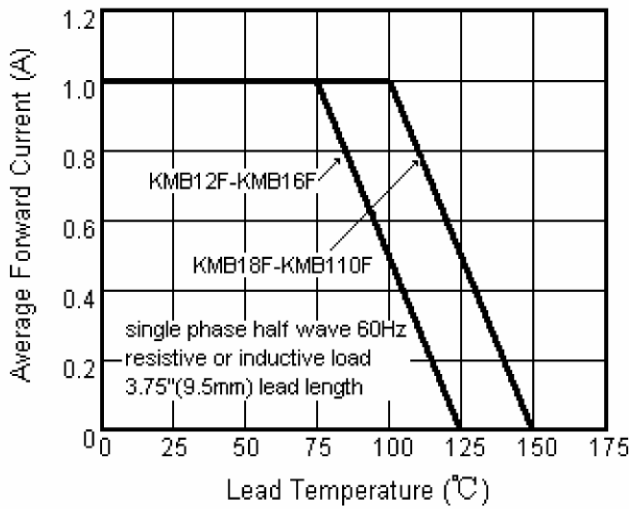


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

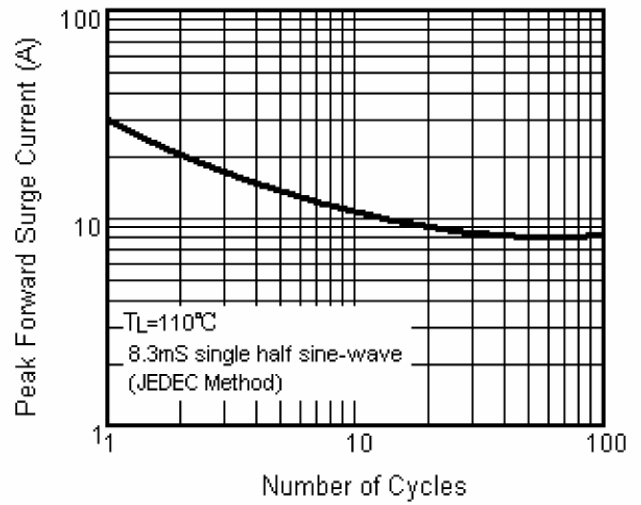


Fig.3 Typical Instantaneous Forward Characteristics

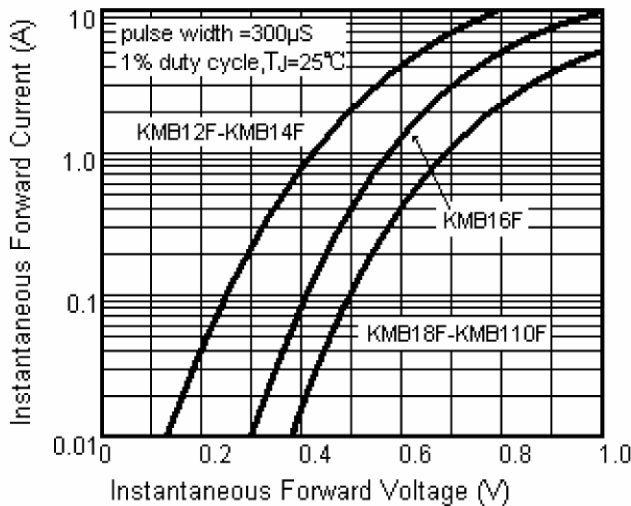


Fig.4A Typical Reverse Characteristics

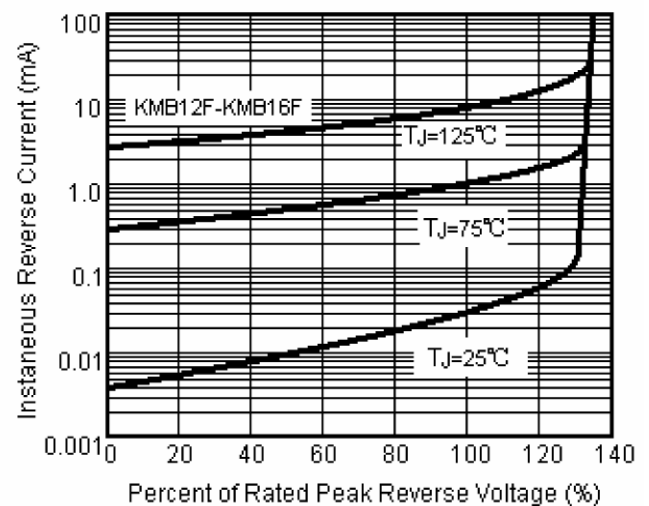


Fig.5 Typical Junction Capacitance

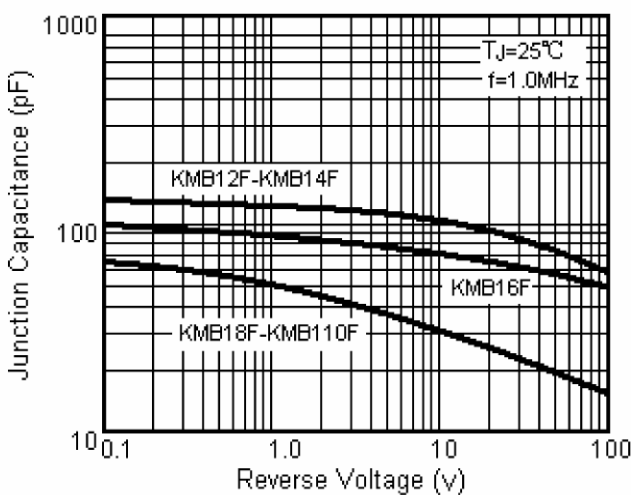


Fig.4B Typical Reverse Characteristics

