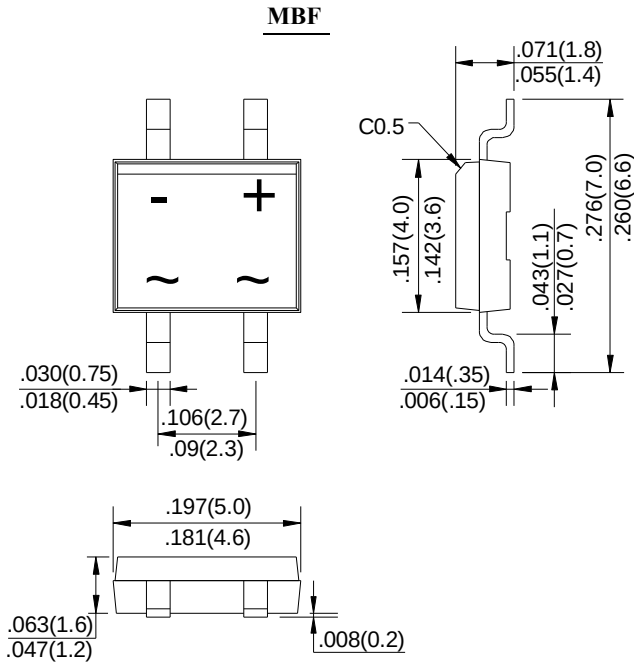
# KMB12F THRU KMB110F

## Schottky Surface Mount Flat Bridge Rectifier

*Reverse Voltage - 20 to 100 Volts  Forward Current - 1.0 Amperes*




Dimensions in inches and (millimeters)

### *FEATURES*

- Surge overload rating: 30 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Low leakage
- Reliable low cost construction utilizing molded

### *MECHANICAL DATA*

Case: Molded plastic, MBF

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave 60Hz,resistive or inductive load,for current capacitive load, derate by 20%.

| MDD Catalog Number | 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 forwad voltage at 1.0A | $V_F$ | 0.50 | 0.55 | 0.70 | 0.85 | | V |
| Maximum DC reverse current $T_A$ = 25 ℃<br>at Rated DC blocking voltage $T_A$ = 100℃ | $I_R$ | 0.5<br>20 | | | | | mA |
| Typical Junction Capacitance at 4.0V,1.0MHz | $C_J$ | 250 | | | 125 | | pF |
| Typical Thermal resistance (Note1) | $R_{\theta JA}$<br>$R_{\theta JL}$ | 85<br>20 | | | | | ℃/ W |
| Operating junction temperature range | $T_J$ | –55 to +125 | | | | | ℃ |
| Storage temperature range | $T_{STG}$ | – 55 to +150 | | | | | ℃ |

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.

## Characteristic Curves ($T_A$=25 unless otherwise noted)

**Fig.1 Forward Current Derating Curve**

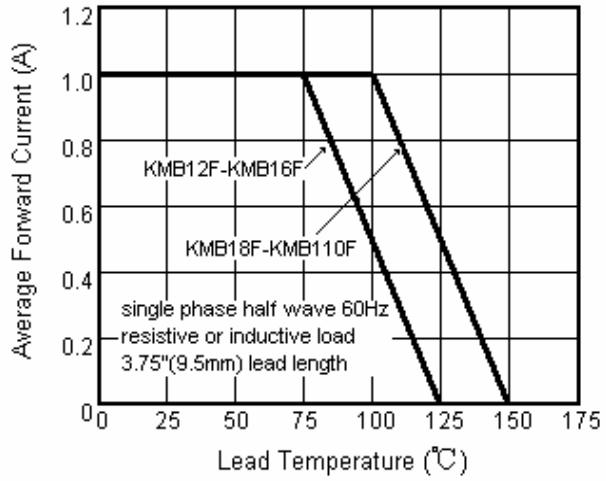



**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**

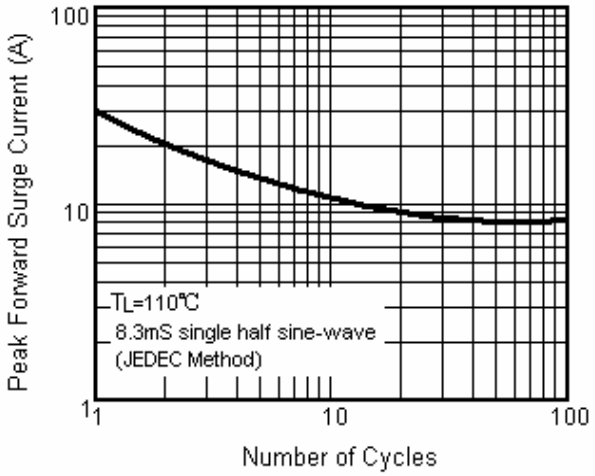



**Fig.3 Typical Instantaneours Forward Characteristics**

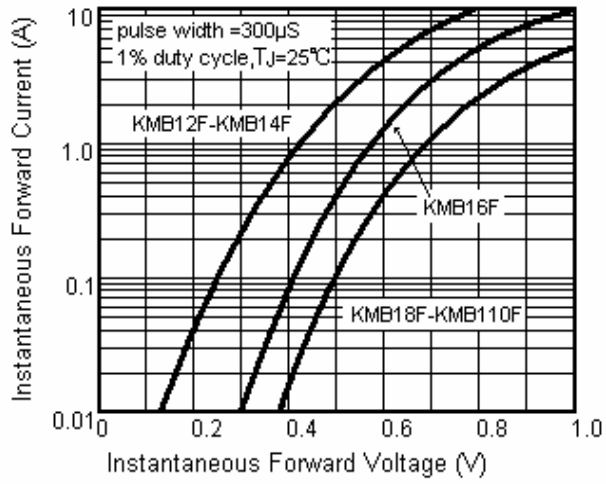



**Fig.4A Typical Reverse Characteristics**

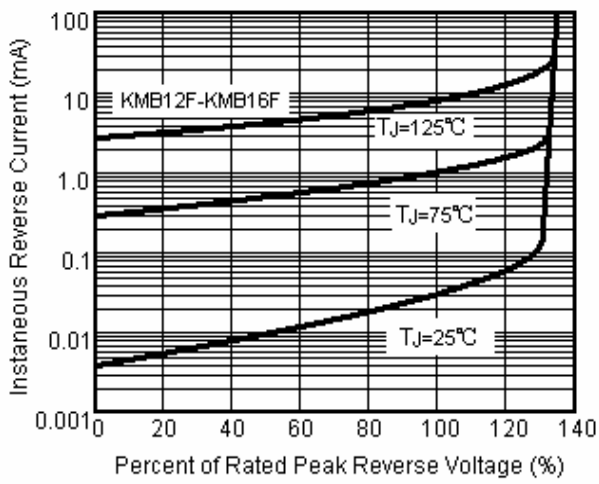



**Fig.5 Typical Junction Capacitance**

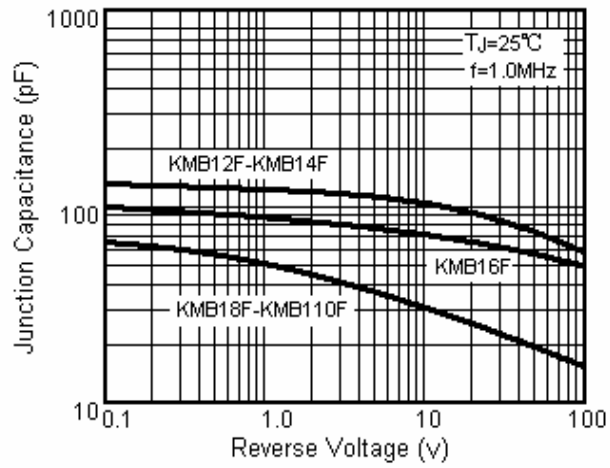



**Fig.4B Typical Reverse Characteristics**