

VI. Bridge Rectifier

1.0A SMD Schottky Bridge Rectifiers (Low Profile Type) KMB12F~KMB110F

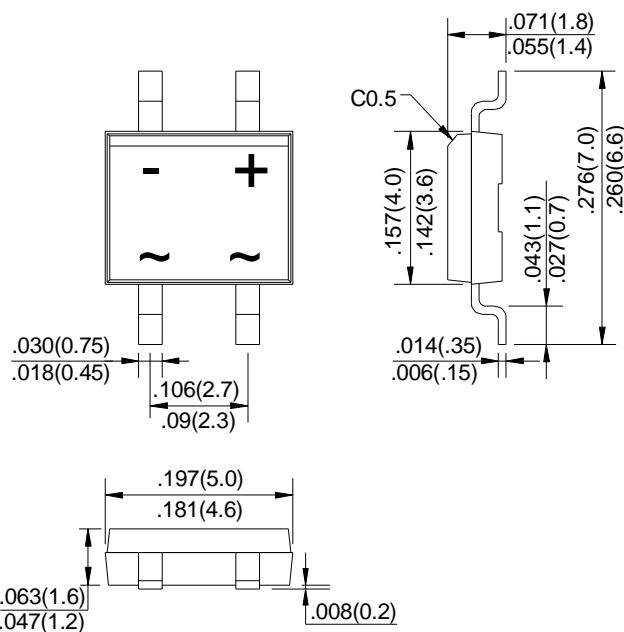
(Package: MTS)

FEATURES

- Reliable low cost construction utilizing molded plastic technique.
- Ultrafast reverse recovery time.
- High surge current capability.
- Saves space on printed circuit boards.
- High temperature soldering guaranteed: 260 / 10 seconds at terminals.

MECHANICAL DATA

- Case : Molded plastic body over schottky barrier chips.
- Terminals : Solder plated, solderable per J-STD-002B and JESD22-B102D.
- Polarity : Polarity symbols marked on case.
- Mounting position : Any.



Case: MTS
Dimensions in inches and (millimeters)

Ratings & Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

| Characteristic | Symbol | KMB12F | KMB14F | KMB16F | KMB18F | KMB110F | Units |
|---|------------------|-------------|--------|--------|--------|---------|-------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 40 | 60 | 80 | 100 | Volts |
| Maximum RMS voltage | V_{RMS} | 14 | 28 | 42 | 56 | 70 | Volts |
| Maximum DC blocking voltage | V_{DC} | 20 | 40 | 60 | 80 | 100 | Volts |
| Maximum average forward rectified current 0.2x0.2"(5.0x5.0mm) copper pad area | I_o | 1.0 | | | | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load. | I_{FSM} | 30 | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.50 | 0.55 | 0.70 | 0.85 | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 0.5 20 | | | | | mA |
| Typical junction capacitance (Note 1) | C_j | 250 | | | 125 | | PF |
| Typical thermal resistance (Note 2) | Rth-JA Rth-JL | 85 20 | | | | | /W |
| Operating junction temperature range | T_j | -55 to +125 | | | | | |
| Storage temperature range | T_{stg} | -55 to +150 | | | | | |

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4.0 volts D.C.
2. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

Ratings and Characteristic Curves of KMB12F~KMB110F

Fig.1 Forward Current Derating Curve

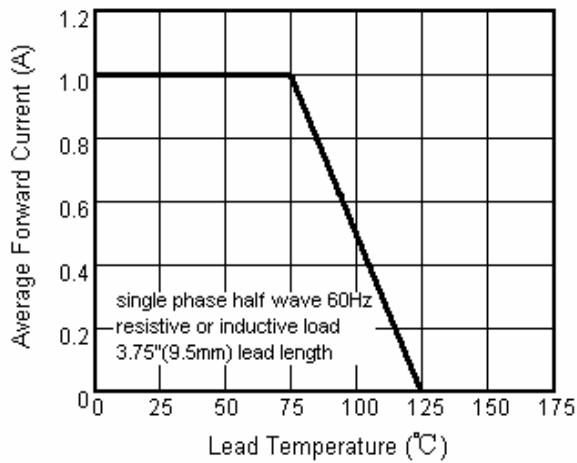


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

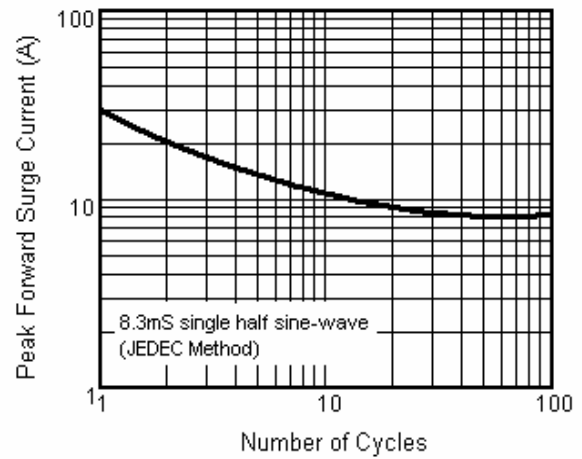


Fig.3 Typical Instantaneous Forward Characteristics

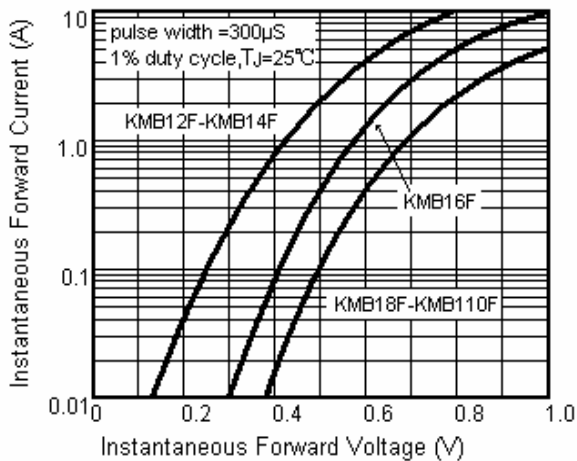


Fig.4A Typical Reverse Characteristics

