



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**MBK22F  
THRU  
MBK220F**

*TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER*

*VOLTAGE RANGE - 20 to 200 Volts*

*CURRENT - 2.0 Amperes*

**FEATURES**

- \*High surge current capability
- \* Ideal for printed circuit board

**MECHANICAL DATA**

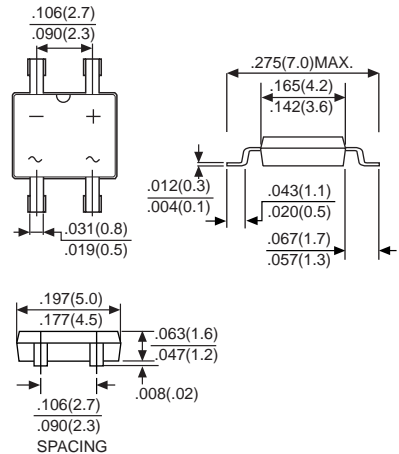
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 0.075 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



MBF



Dimensions in inches and (millimeters)

|   | SYMBOL              | MBK22F | MBK24F | MBK26F | MBK28F | MBK210F      | MBK215F | MBK220F | UNITS |
|---|---------------------|--------|--------|--------|--------|--------------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>    | 20     | 40     | 60     | 80     | 100          | 150     | 200     | Volts |
| Maximum RMS Bridge Input Voltage  | V <sub>RMS</sub>    | 14     | 28     | 42     | 56     | 70           | 105     | 140     | Volts |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>     | 20     | 40     | 60     | 80     | 100          | 150     | 200     | Volts |
| Maximum Average Forward Output Current at TA=75°C (Note 1)  | I <sub>O</sub>      | 2.0    |        |        |        |              |         |         | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>    | 40     |        |        | 30     |              |         |         | Amps  |
| Maximum DC Forward Voltage Drop per Bridge Element at 2.0A DC                                     | V <sub>F</sub>      | 0.55   |        | 0.70   | 0.85   |              | 0.95    |         | Volts |
| Maximum Reverse Current at rated DC Blocking Voltage per element                                  | @ TA = 25°C         | 0.3    |        |        | 0.2    |              | 0.1     |         | mAmps |
|   | @ TA = 125°C        | 10     |        |        |        |              |         |         |       |
| Typical Junction Capacitance ( Note 2)  | C <sub>J</sub>      |        |        |        |        | 220          |         |         | pF    |
| Typical Thermal Resistance (Note 3)   | R <sub>θJA</sub>    |        |        |        |        | 75           |         |         | °C/W  |
| Operating and Storage Temperature Range   | T <sub>J,TSTG</sub> |        |        |        |        | -50 to + 150 |         |         | °C    |

NOTES: 1. Mounted on P.C. board with 4x(5x5mm<sup>2</sup>) copper pad.  
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.  
3. Thermal resistance junction to ambient.

# RATING AND CHARACTERISTIC CURVES ( MBK22F THRU MBK220F )

FIG. 1  
MAXIMUM NON-REPETITIVE SURGE CURRENT

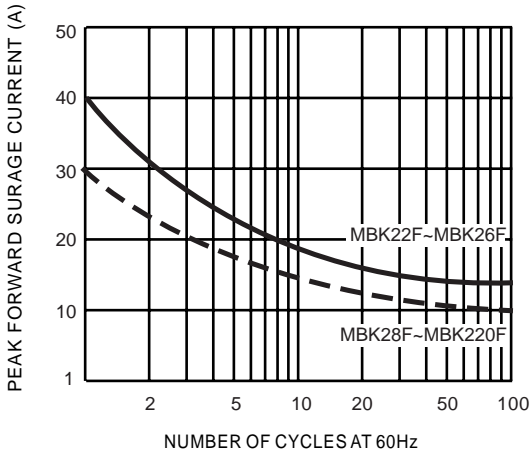


FIG. 2  
DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

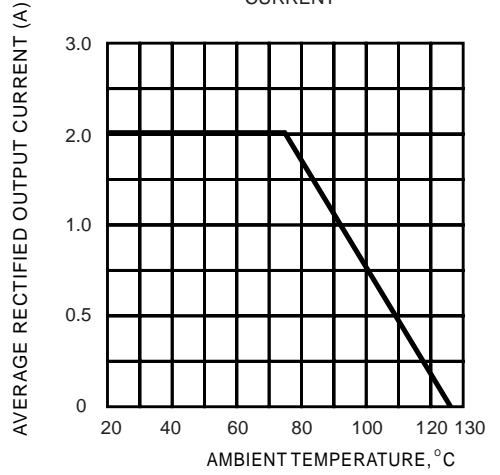


FIG. 3  
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

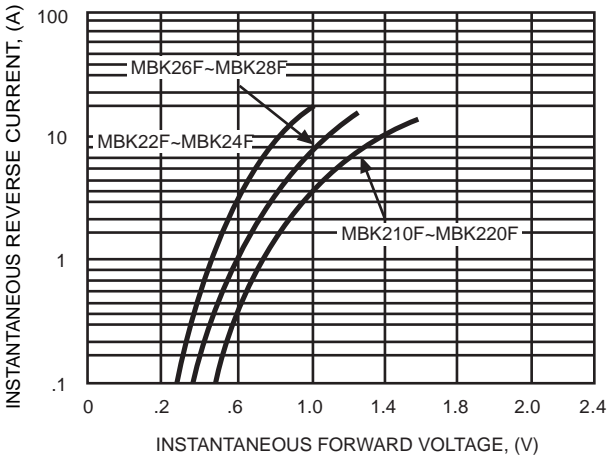
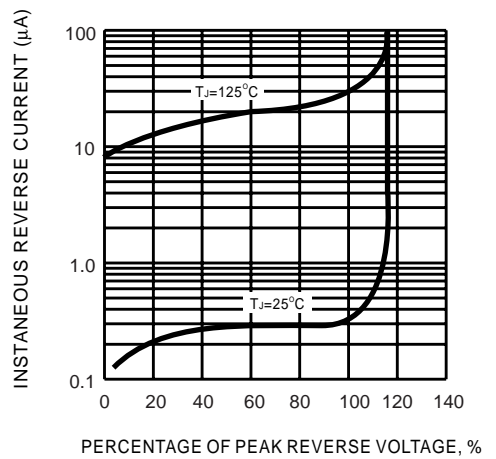


FIG. 4  
TYPICAL REVERSE CHARACTERISTICS



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