



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**B04AF  
THRU  
B04MF**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER**  
**VOLTAGE RANGE - 50 to 1000 Volts** **CURRENT - 0.4 Ampere**

**FEATURES**

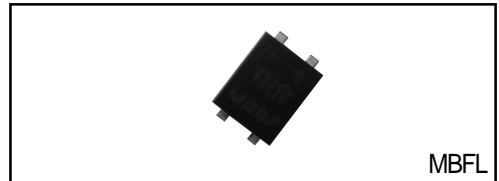
- \* Ideal for automated placement
- \* Low profile space
- \* Low forward voltage drop
- \* Low leakage current
- \* High forward surge capability
- \* Glass passivated junction

**MECHANICAL DATA**

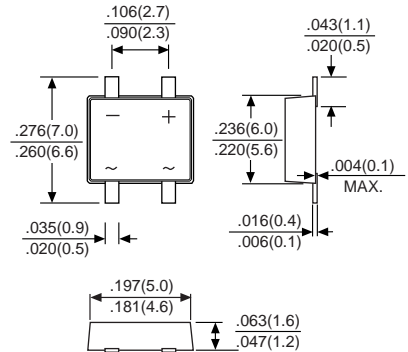
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 0.12 gram

**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, derate current by 20%.



MBFL



Dimensions in inches and (millimeters)

|   | SYMBOL                            | B04AF                    | B04BF | B04DF | B04GF | B04JF | B04KF | B04MF | UNITS |
|---|-----------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub>                  | 50                       | 100   | 200   | 400   | 600   | 800   | 1000  | Volts |
| Maximum RMS Bridge Input Voltage  | V <sub>RMS</sub>                  | 35                       | 70    | 140   | 280   | 420   | 560   | 700   | Volts |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>                   | 50                       | 100   | 200   | 400   | 600   | 800   | 1000  | Volts |
| Maximum Average Forward Output Current  | I <sub>O</sub>                    | 0.4                      |       |       |       |       |       |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                  | 20                       |       |       |       |       |       |       | Amps  |
| Maximum DC Forward Voltage Drop per Bridge Element at 0.4A DC                                     | V <sub>F</sub>                    | 1.1                      |       |       |       |       |       |       | Volts |
| Maximum Reverse Current at rated  | I <sub>R</sub>                    | @ T <sub>A</sub> = 25°C  |       |       |       |       |       |       | μAmps |
| DC Blocking Voltage per element   |                                   | @ T <sub>A</sub> = 125°C |       |       |       |       |       |       |       |
| Typical Thermal Resistance (Note 2)   | R <sub>θJA</sub>                  | 105                      |       |       |       |       |       |       | °C/W  |
| Operating and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub> | -55 to + 150             |       |       |       |       |       |       | °C    |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 2. On P.C.B. with 0.05 x 0.05" (1.3x1.3mm) copper pads.

# RATING AND CHARACTERISTIC CURVES (B04AF THRU B04MF)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT

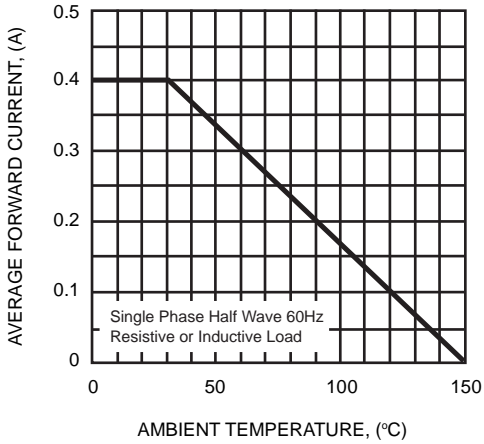


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

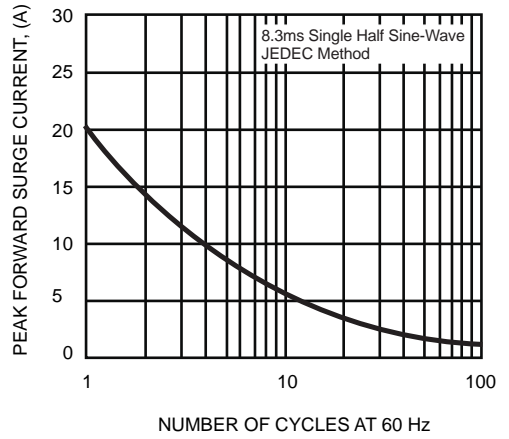


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

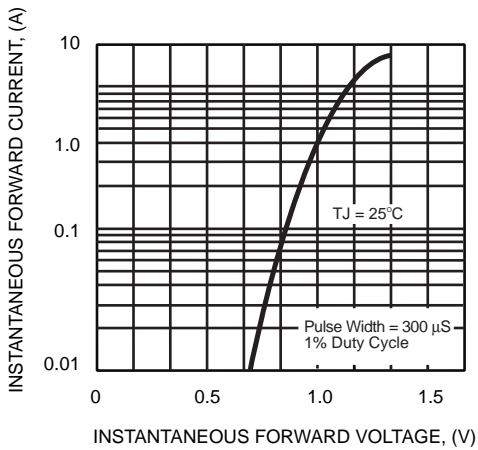
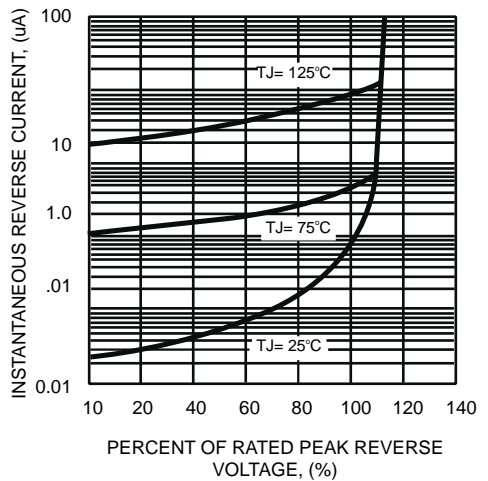


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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