



*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**

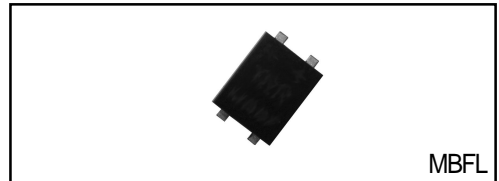
- \* Ideal for automated placement
- \* Low profile space
- \* Low forward voltage drop
- \* Low leakage current
- \* High forward surge capability
- \* Glass passivated junction

**MECHANICAL DATA**

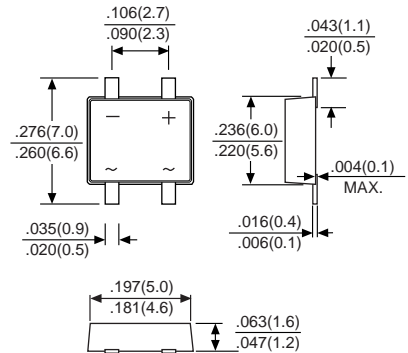
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 0.12 gram

**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

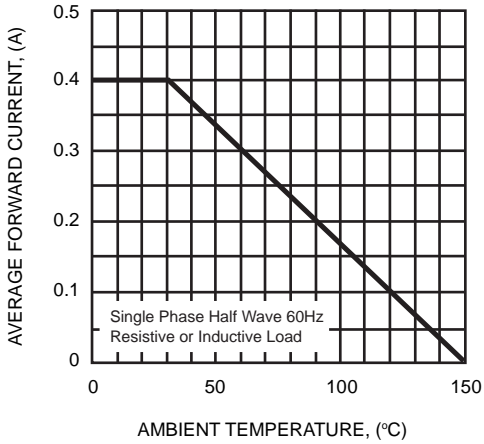


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

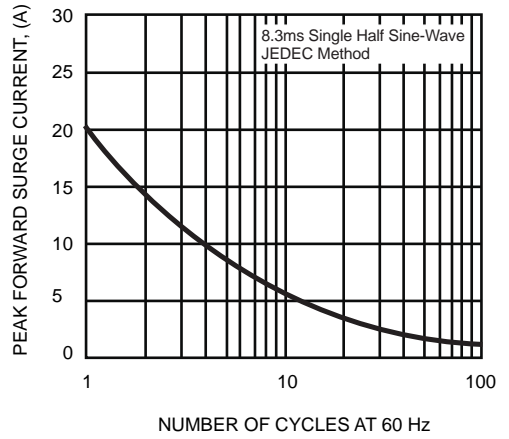


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

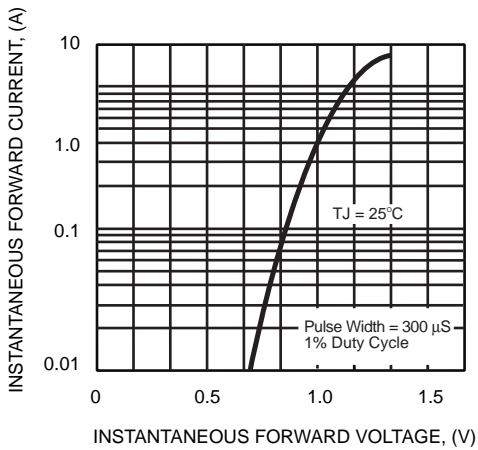
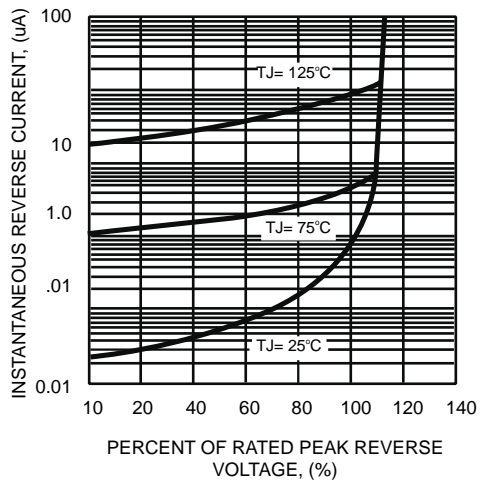


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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