



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

B1AF
THRU
B1MF

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts
CURRENT - 1.0 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

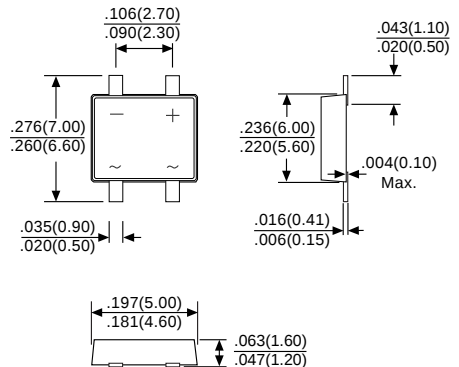
Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



MBF



Dimensions in inches and (millimeters)

	SYMBOL	B1AF	B1BF	B1DF	B1GF	B1JF	B1KF	B1MF	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T _A = 30°C	I _O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	35							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 1.0A DC	V _F	1.1							Volts
Maximum Reverse Current at rated	I _R	5.0							μAmps
DC Blocking Voltage per element									
Typical Junction Capacitance (Note 1)	C _J	13							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	70							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-50 to + 150							°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2. On glass epoxy P.C.B. with 0.05 x 0.05" (1.3x1.3mm) copper pads.

RATING AND CHARACTERISTIC CURVES (B1AF THRU B1MF)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT

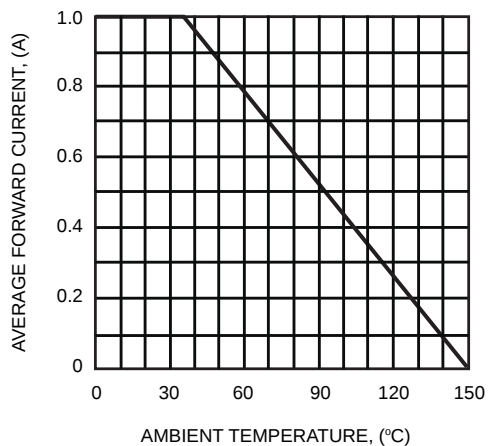


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

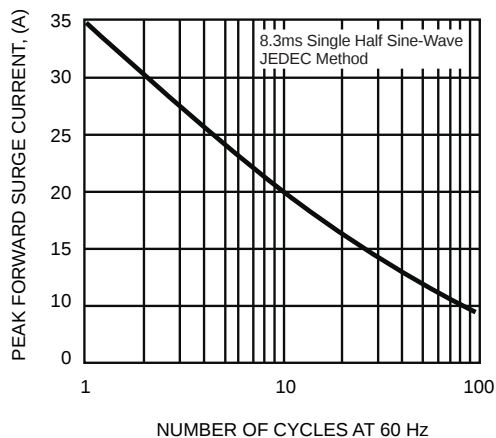


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

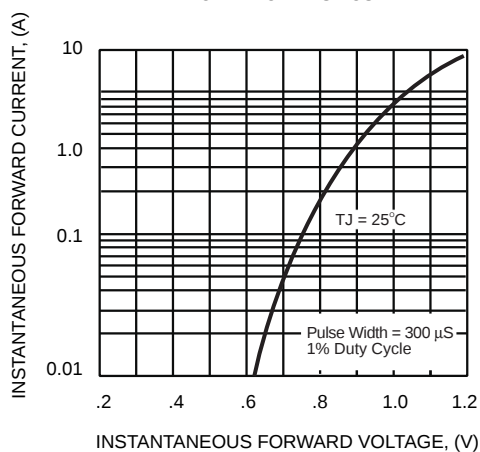


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

