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 grop
* Low leakage current
* High forward surge capability
* Glass passivated junction

MECHANICAL DATA

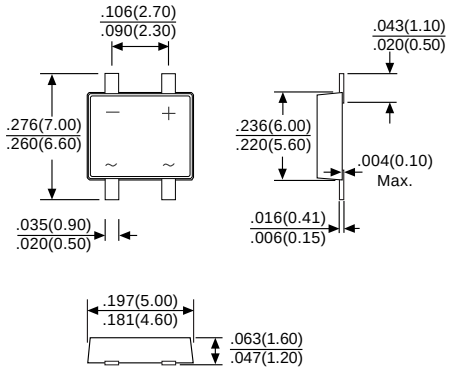
* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any
* Weight: 0.12 gram

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 DC Blocking Voltage per element	@T_A = 25°C	I_R	5.0							µAmps
	@T_A = 125°C		100							
Typical Junction Capacitance (Note1)		C_J	13							pF
Typical Thermal Resistance (Note 2)		RθJA	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

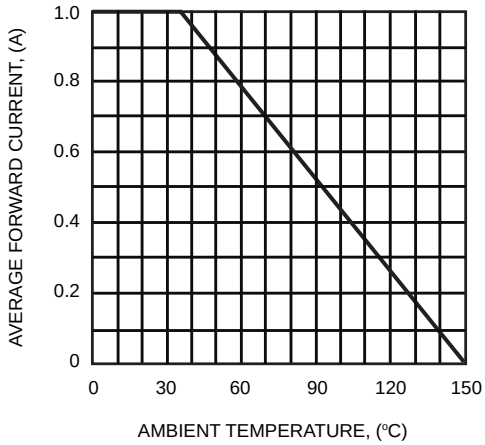


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

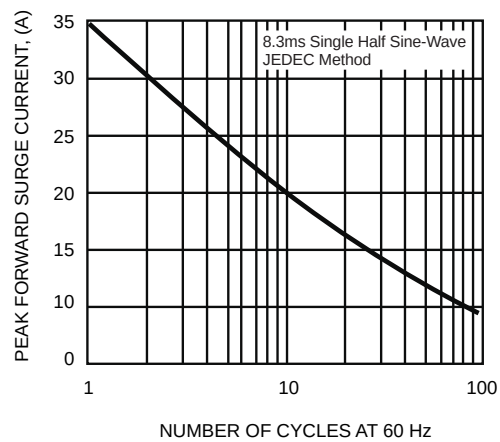


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

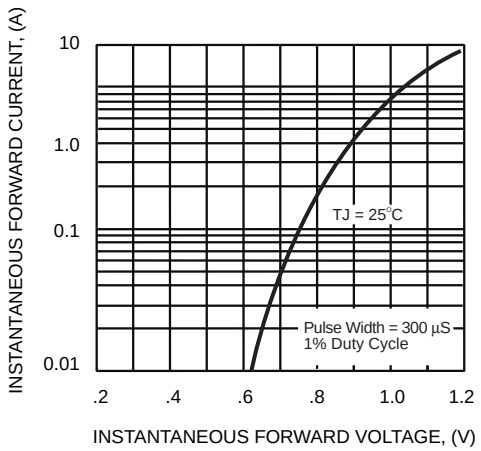


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

