



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**AFB1AF
THRU
AFB1JF**

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SUPER FAST BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 600 Volts

CURRENT - 1.0 Ampere

FEATURES

- * High surge current capability
- * Ideal for printed circuit board
- * Fast reverse recovery time
- * Glass passivated junction

MECHANICAL DATA

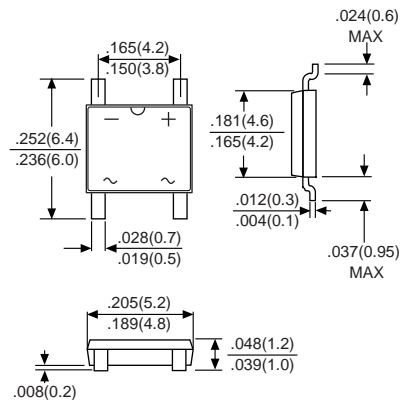
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.082 gram

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%.



ABF



Dimensions in inches and (millimeters)

	SYMBOL	AFB1AF	AFB1BF	AFB1DF	AFB1GF	AFB1JF	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	Volts
Maximum Average Forward Output Current at TA=50°C(Note 1)	I _O	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30					Amps
Maximum DC Forward Voltage Drop per Bridge Element at 1.0A DC	V _F	1.0		1.3		1.7	Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	@TA = 25°C	5.0					µAmps
	@TA = 125°C	50					
Maximum Reverse Recovery Time (Note 4)	t _{rr}	35					nS
Typical Junction Capacitance (Note 2)	C _J	13					pF
Typical Thermal Resistance (Note 3)	R _{θJA}	85					°C/W
Operating and Storage Temperature Range	T _{J,TSTG}	-50 to + 150					°C

- NOTES: 1. Mounted on P.C. board with 4x(5x5mm²) copper pad.
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient.
4. Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.

RATING AND CHARACTERISTIC CURVES (AFB1AF THRU AFB1JF)

FIG. 1
MAXIMUM NON-REPETITIVE SURGE CURRENT

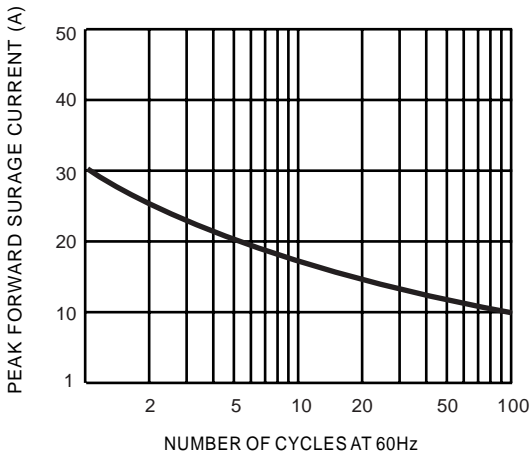


FIG. 2
DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

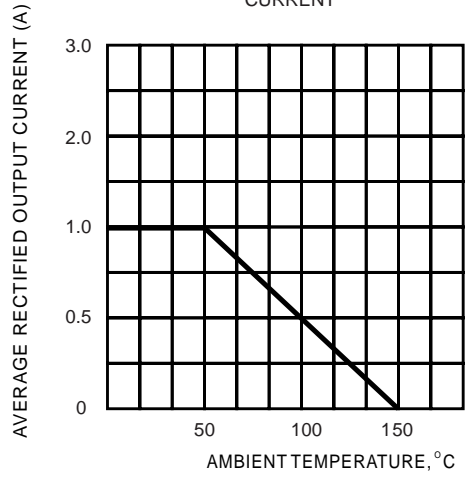


FIG. 3
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

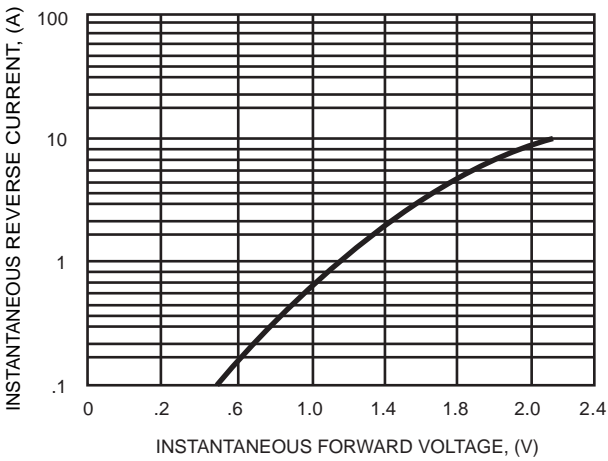
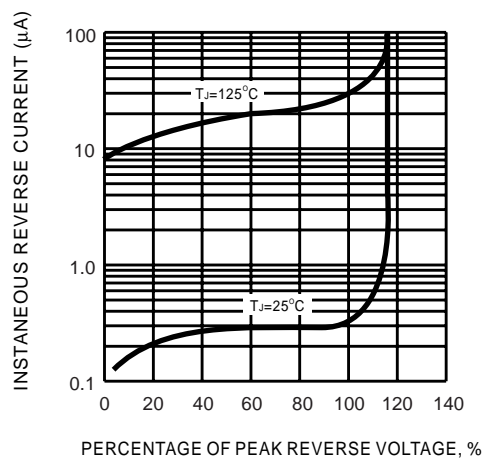


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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