



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**B05AF
THRU
B05MF**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 0.5 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

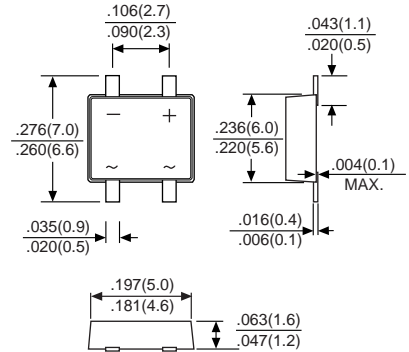
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.12 gram

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	B05AF	B05BF	B05DF	B05GF	B05JF	B05KF	B05MF	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 (Note 2)	I _O	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.5A DC	V _F	1.0							Volts
Maximum Reverse Current at rated	I _R	5.0							μAmps
DC Blocking Voltage per element		@ T _A = 125°C							
Typical Junction Capacitance (Note1)	C _J	15							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	85							°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 (B05AF THRU B05MF)

FIG. 1 - DERATING CURVE FOR OUTPUT CURRENT

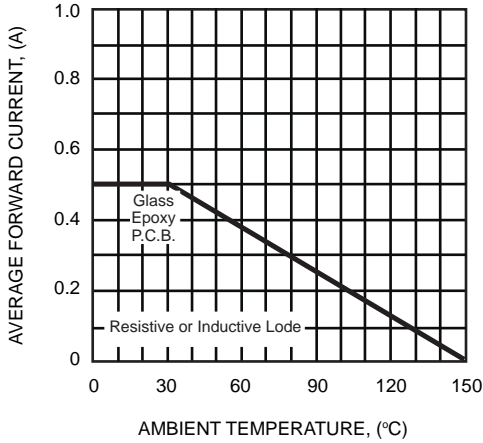


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

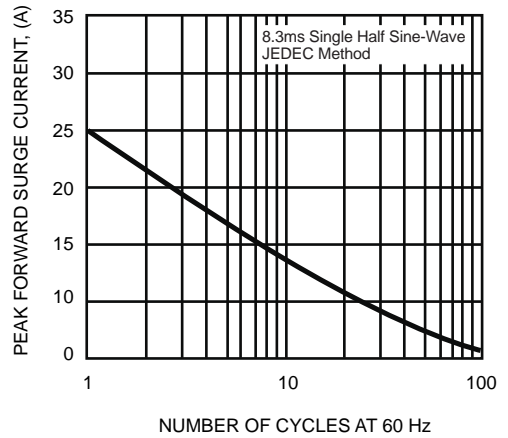


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

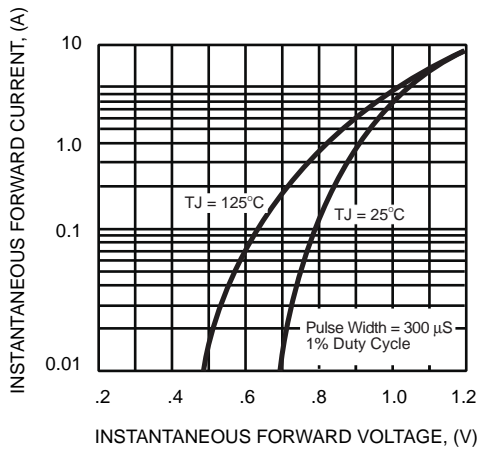
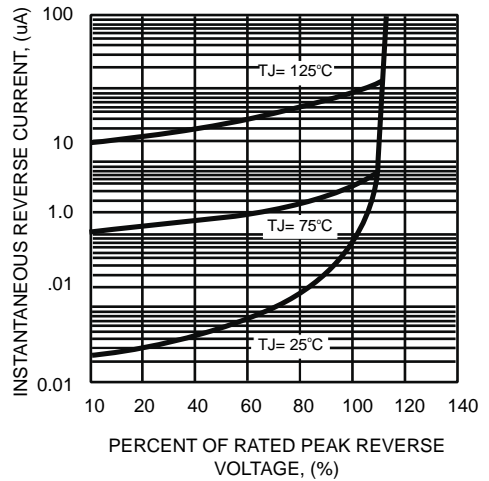


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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