



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

**MB05S  
THRU  
MB10S**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE MINI SURFACE MOUNT BRIDGE RECTIFIER**

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 0.8 Ampere**

**FEATURES**

- \* Surge overload rating - 30 Amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction
- \* Glass passivated junction

**MECHANICAL DATA**

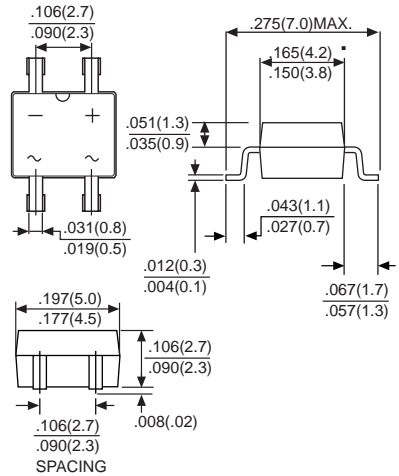
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 0.13 gram

**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%.



MBS



Dimensions in inches and (millimeters)

	SYMBOL	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	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 at T <sub>A</sub> = 40 °C (Note 1)	I <sub>O</sub>	0.8							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25							Amps
Maximum DC Forward Voltage Drop per Bridge Element at 0.8A DC	V <sub>F</sub>	1.1							Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	@ T <sub>A</sub> = 25 °C	5.0							µAmps
	@ T <sub>A</sub> = 125 °C	500							
Typical Junction Capacitance ( Note 2)	C <sub>J</sub>	15							pF
Typical Thermal Resistance (Note 3)	R <sub>θJC</sub>	75							°C/W
Operating and Storage Temperature Range	T <sub>J,TSTG</sub>	-50 to + 150							°C

NOTES: 1. Mounted on P.C. board.  
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.  
3. Thermal resistance junction to case.

# RATING AND CHARACTERISTIC CURVES ( MB05S THRU MB10S )

FIG.1  
FORWARD CURRENT DERATING CURVE

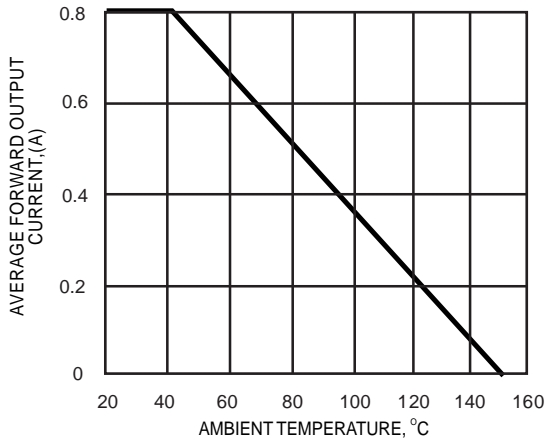


FIG.2  
MAXIMUM NON-REPETITIVE SURGE CURRENT

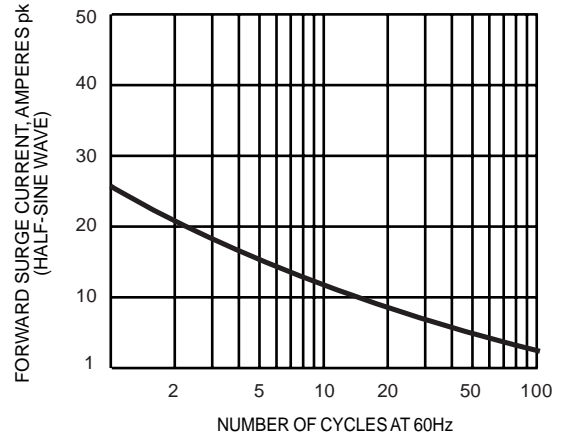


FIG.3  
TYPICAL FORWARD CHARACTERISTICS

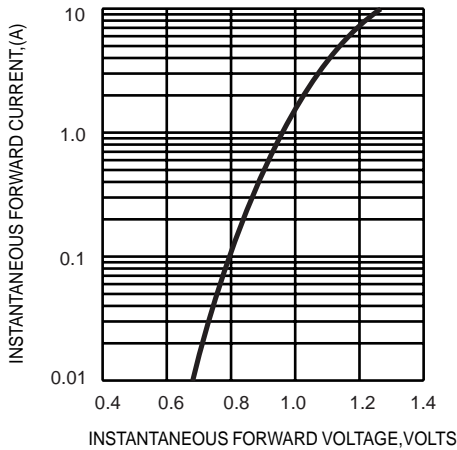


FIG.4  
TYPICAL REVERSE CHARACTERISTICS

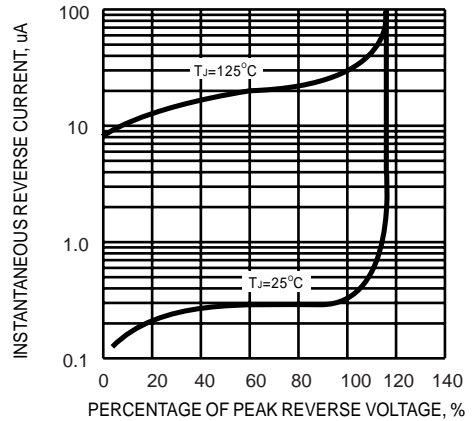
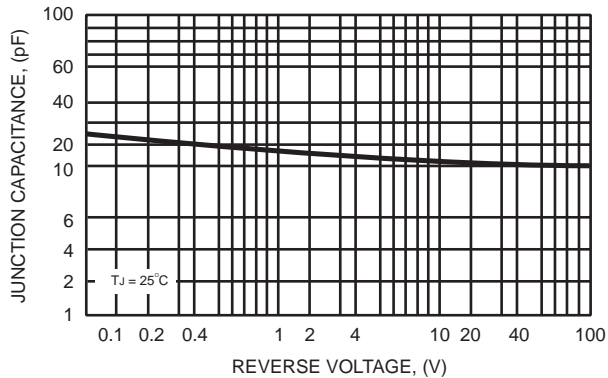


FIG. 5  
TYPICAL JUNCTION CAPACITANCE



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