



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**MP10005  
THRU  
MP1010**

**TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER**  
**VOLTAGE RANGE - 50 to 1000 Volts** **CURRENT - 10 Amperes**

**FEATURES**

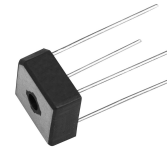
- \* Surge overload rating: 240 Amperes peak
- \* Low forward voltage drop
- \* Small size: simple installation

**MECHANICAL DATA**

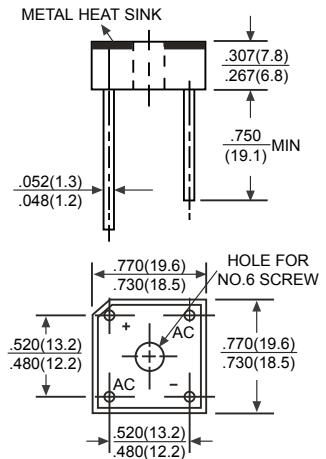
- \* Case: Molded plastic with heatsink
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 6.1 grams

**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%.



**MP-8**



Dimensions in inches and (millimeters)

	SYMBOL	MP10005	MP1001	MP1002	MP1004	MP1006	MP1008	MP1010	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>c</sub> = 50°C	I <sub>o</sub>	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	240							Amps
Maximum Forward Voltage Drop per element at 5.0A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@T <sub>A</sub> = 25°C	10							μAmps
	@T <sub>c</sub> = 100°C	500							
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

# RATING AND CHARACTERISTIC CURVES (MP1005 THRU MP1010)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

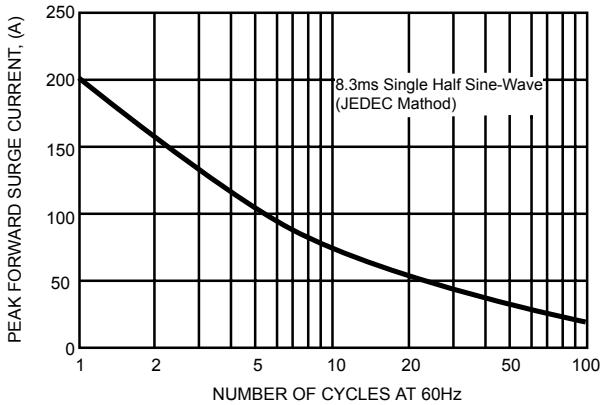


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

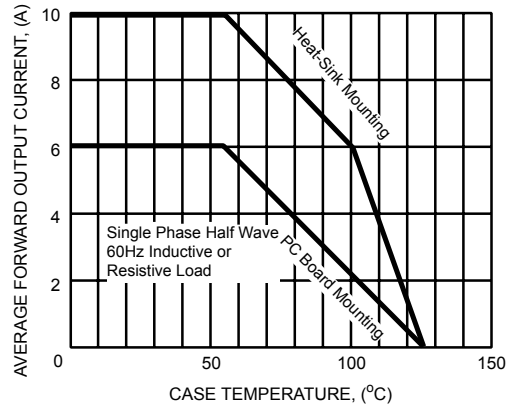


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

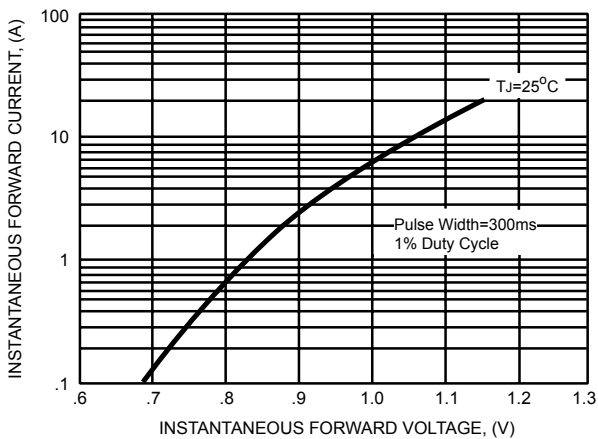


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

