

# MD005 THRU MD10

**SINGLE PHASE GLASS  
PASSIVATED SURFACE MOUNT BRIDGE  
RECTIFIER**  
VOLTAGE:50 TO 1000V      CURRENT:0.8A

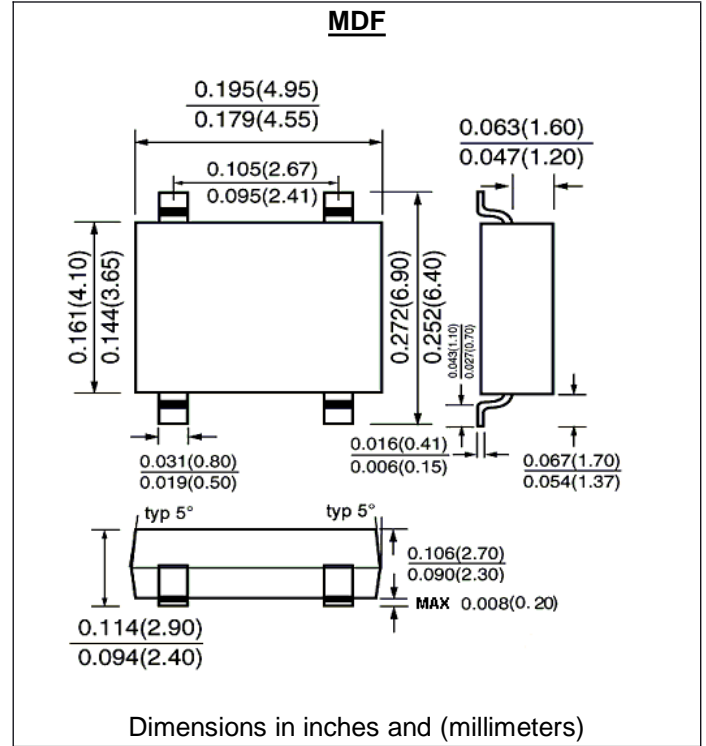


## FEATURE

For surface mount application  
Reliable low cost construction utilizing molded plastic  
Technique  
Surge overload rating:30 A peak

## MECHANICAL DATA

Terminal: Plated leads solderable per  
MIL-STD 202E, method 208C  
Case:UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: Polarity symbol marked on body  
Mounting position: any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	MD 005	MD 01	MD 02	MD 04	MD 06	MD 08	MD 10	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta =40°C	I <sub>f(av)</sub>	0.8							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	30.0							A
Maximum Instantaneous Forward Voltage at forward current 0.4A	V <sub>f</sub>	1.0							V
Maximum DC Reverse Current at rated DC blocking voltage	I <sub>r</sub>	5.0 500.0							μA uA
Typical Junction Capacitance (Note1)	C <sub>j</sub>	15.0							Pf
Typical Thermal resistance (Note2)	R <sub>th(ja)</sub>	76							°C/W
(Note3)	R <sub>th(jl)</sub>	20							
Operating Junction Temperature Range	T <sub>j</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150							°C

Note:

1. Measured at 1.0 MHz and applied voltage of 4.0 volt
2. On aluminum substrate
3. Junction to lead

## RATINGS AND CHARACTERISTIC CURVES MD005 THRU MD10

FIG.1 - FORWARD CURRENT DERATING CURVE

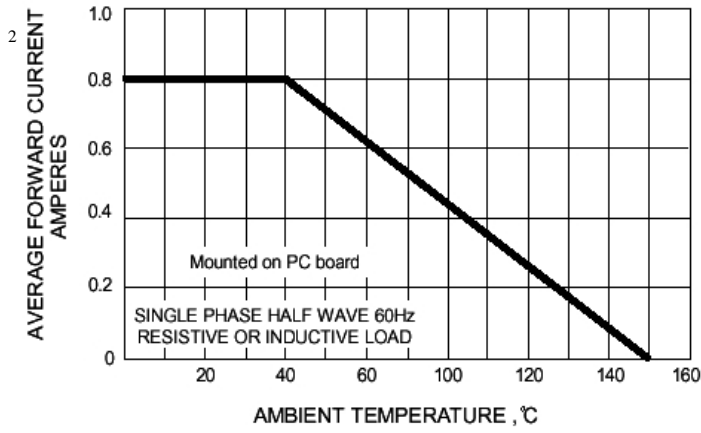


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

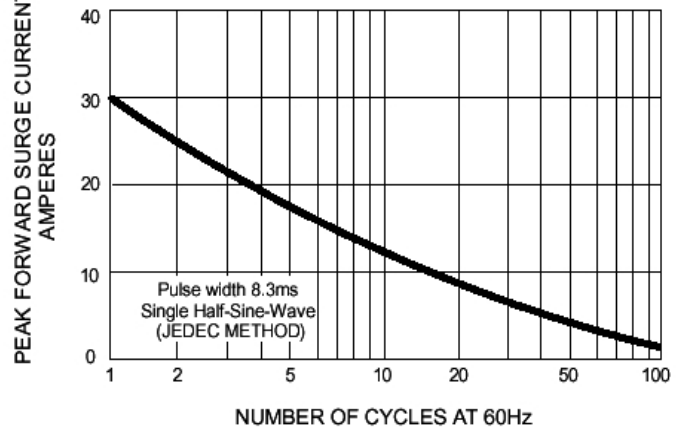


FIG.3 - TYPICAL JUNCTION CAPACITANCE

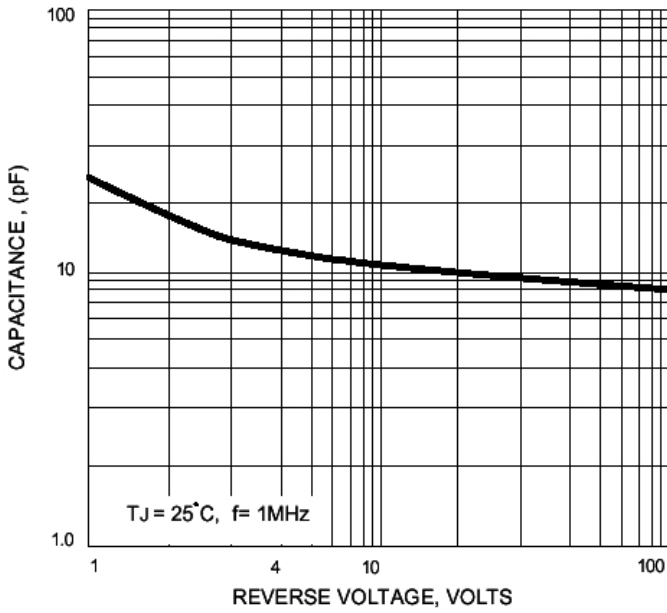


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

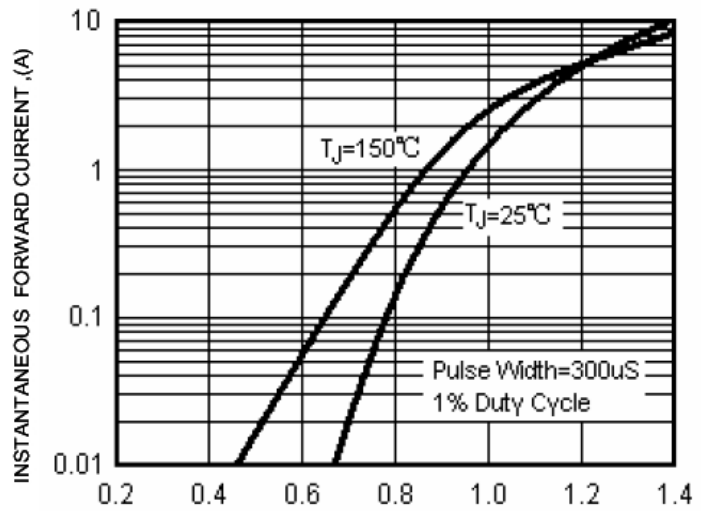


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

