

# M1 THRU M7

**SURFACE MOUNT**  
**GENERAL PURPOSE PLASTIC RECTIFIER**  
**VOLTAGE: 50 to 1000V**      **CURRENT: 1.0A**

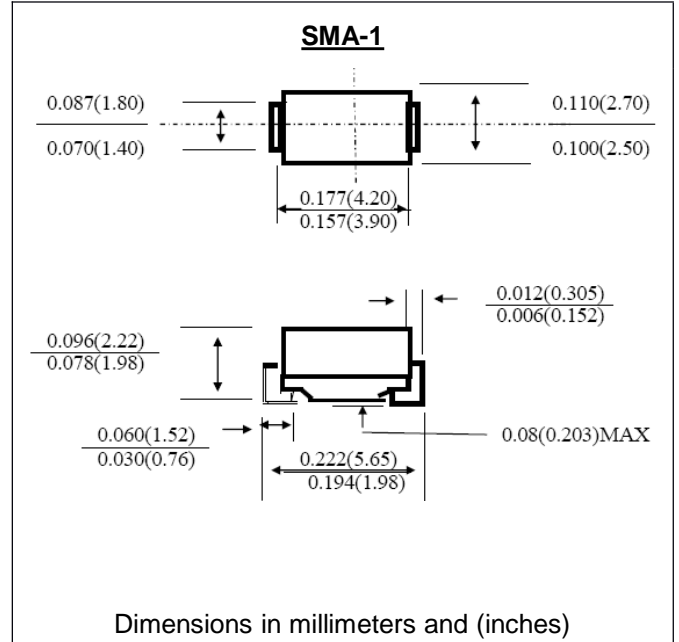


## FEATURE

Low cost  
 Diffused junction  
 Low Leakage  
 Low forward voltage drop  
 High current capability

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 750, method 2026  
 Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy  
 Polarity: color band denotes cathode  
 Mounting position: any  
 Weight: 0.093grams  
 Marking: M1 M2 M3 M4 M5 M6 M7



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	M1	M2	M3	M4	M5	M6	M7	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 3/8"lead length at T <sub>L</sub> =110°C	I <sub>f(av)</sub>	1.0							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 rated forward current	V <sub>f</sub>	1.1							V
Maximum DC Reverse Current at rated DC blocking voltage	I <sub>r</sub>	5.0 50.0							μA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	15.0							pF
Typical Thermal Resistance (Note 2)	R <sub>th(ja)</sub>	75.0							°C /W
Operating Junction Temperature Range	T <sub>j</sub>	-55 to +125							°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150							°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient

RATINGS AND CHARACTERISTIC CURVES M1 THRU M7

FIG. 1-- FORWARD CURRENT DERATING CURVE

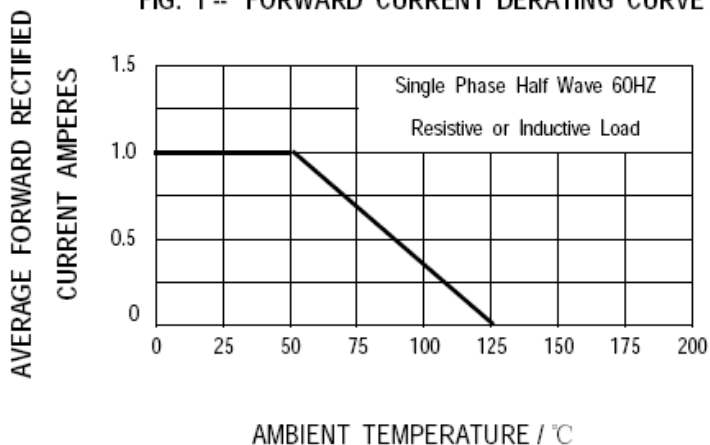


FIG. 2 -- PEAK FORWARD SURGE CURRENT

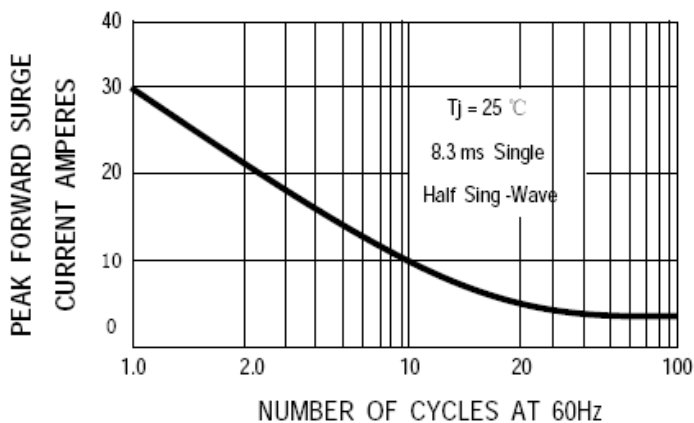


FIG. 3 -- TYPICAL FORWARD CHARACTERISTIC

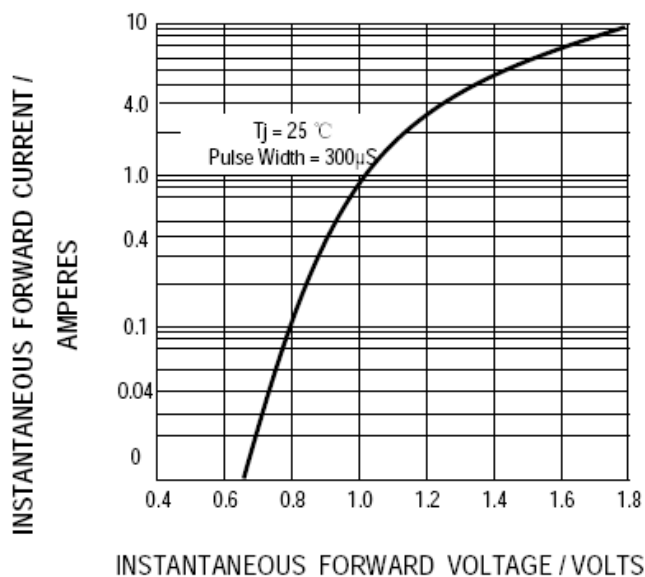


FIG. 4 -- TYPICAL REVERSE CHARACTERISTICS

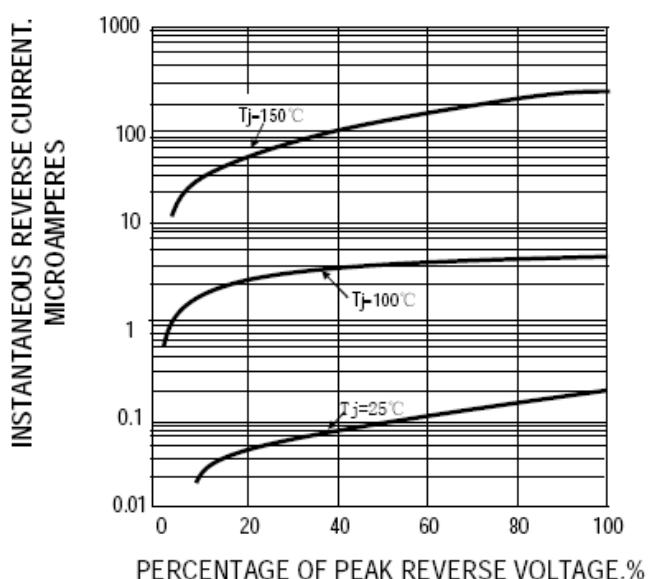


Fig.5 -- TYPICAL JUNCTION CAPACITANCE

