



星合电子
XINGHE ELECTRONICS

SM4001 THRU SM4007

GENERAL PURPOSE PLASTIC RECTIFIER
Reverse Voltage – 50 to 1000 Volts
Forward Current –1.0Ampere

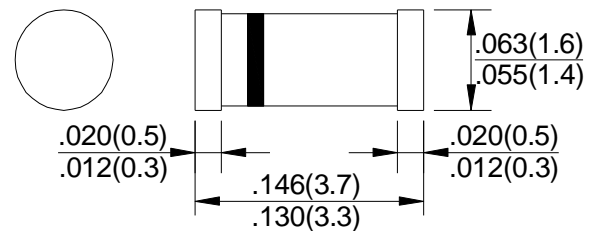
FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:250 C/10 seconds, 0.375"(9.5mm) lead length, 5lbs.(2.3kg).

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.33 gram

MINIMELF(DO-213AA)



Dimensions in inches and (millimeters)

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 by 20%.)

	Symbols	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	Unis
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Current 0.375"(9.5mm) lead length at T _A =75°C	I(AV)	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) T _A =75°C	I _{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V _F	1.1							Volts
Maximum Reverse current at rated DC Blocking Voltage	I _R	T _a =25°C	5.0					μA	
		T _a =100°C	50.0						
Typical Thermal resistance (Note 2)	R _{θJA}	50.0					°C/W		
	R _{θJL}	25.0							
Typical Junction Capacitance(Note 1)	C _J	15.0					Pf		
Maximum DC Blocking Voltage temperature	T _A	+150					°C		
Operating and Storage temperature Range	T _J	-50 to+175					°C		
	T _{STG}								

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG.1-FORWARD CURRENT DERATING CURVE

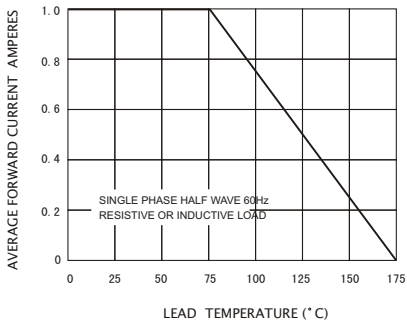


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

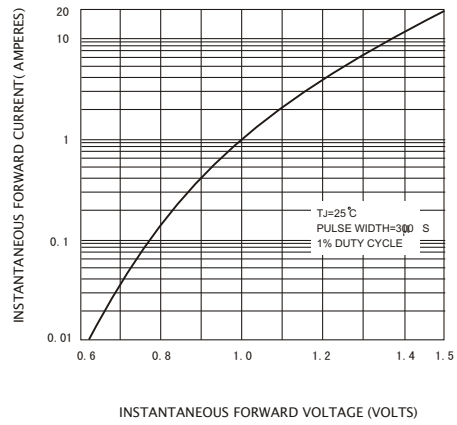


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

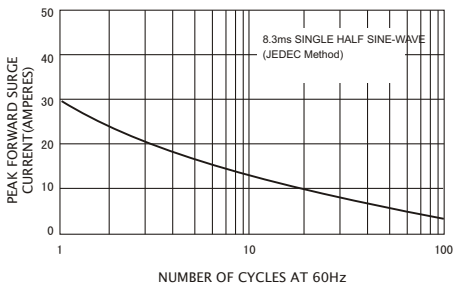


FIG.4-TYPICAL REVERSE CHARACTERISTICS

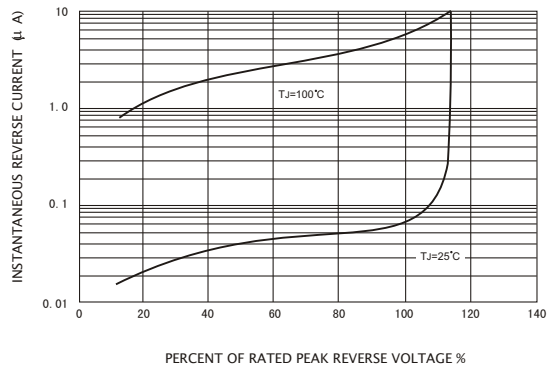


FIG.5-TYPICAL JUNCTION CAPACITANCE

