SM4001M THRU SM4007M

1.0 AMP SURFACE MOUNT SILICON RECTIFIERS

GW

FEATURES

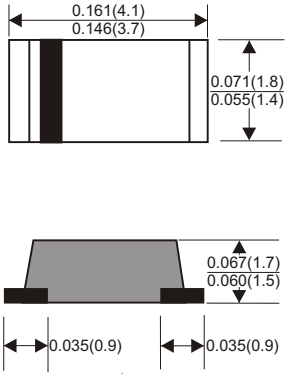
* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.040 gram

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

SOD-123



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25˚C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SM4001M	SM4002M	SM4003M	SM4004M	SM4005M	SM4006M	SM4007M	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta=75˚C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	1.1							V
Maximum DC Reverse Current Ta=25˚C	5.0							μA
at Rated DC Blocking Voltage Ta=100˚C	50							μA
Typical Junction Capacitance (Note 1)	15							pF
Typical Thermal Resistance R JA (Note 2)	60							˚C/W
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150							˚C
Marking Code	A1	A2	A3	A4	A5	A6	A7	

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance from Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM4001M THRU SM4007M)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

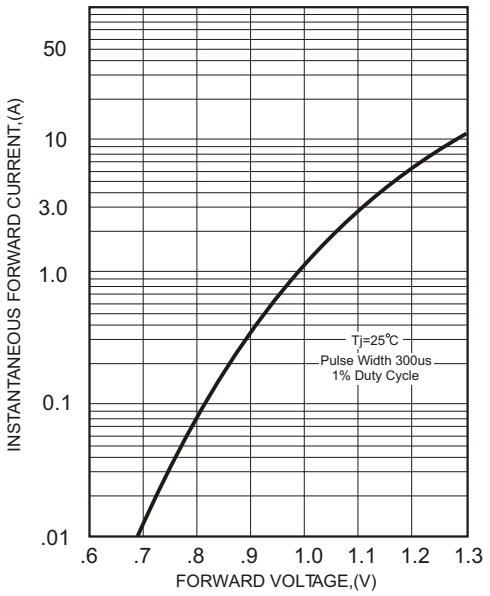


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

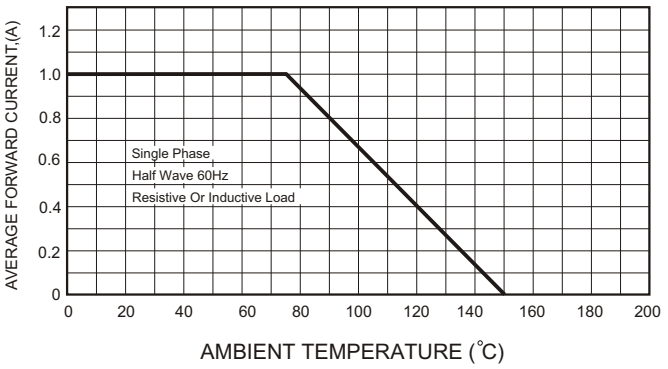


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

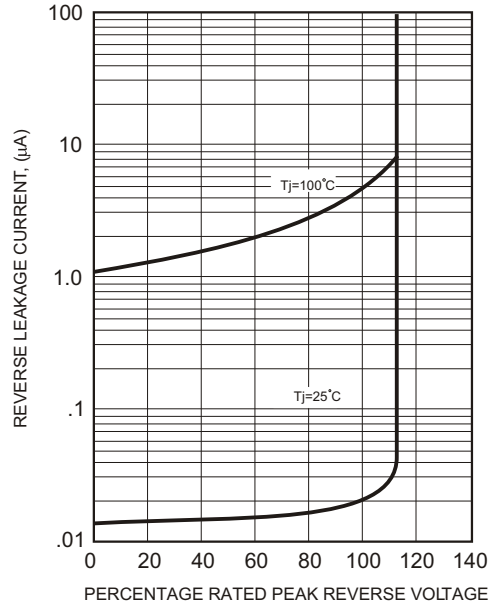


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

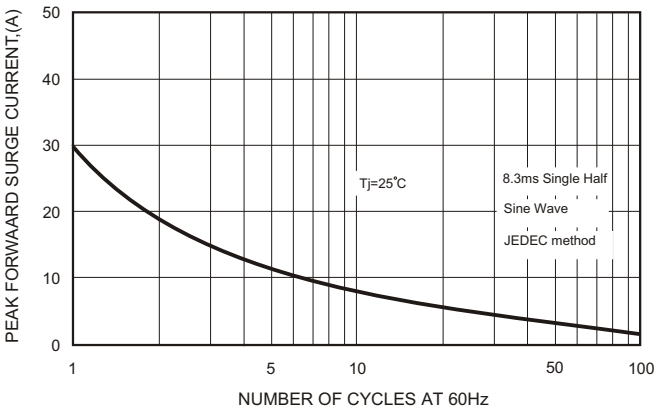


FIG.5-TYPICAL JUNCTION CAPACITANCE