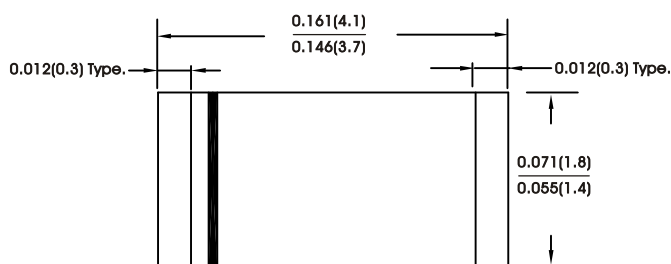


## SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

## SOD-123

## FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Utilizing Flame Retardant Epoxy Molding Compound
- Glass passivated ship junction
- Low leakage current



## MECHANICAL DATA

Case : JEDEC SOD-123 / MINI SMA molded plastic

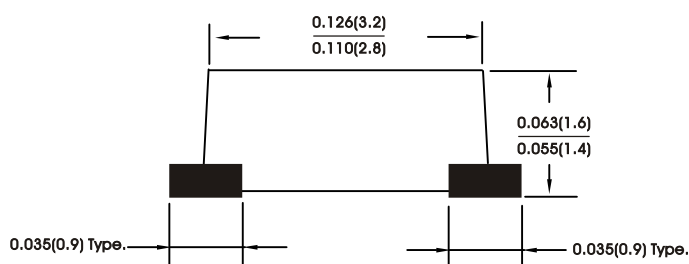
Terminals : Solder plated, solderable per MIL-STD-750

Method 2026

Polarity : Indicated by cathode band

Mounting Postition : Any

Weight : 0.04 grams



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase half wave, 60 Hz resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	SM 4001-M	SM 4002-M	SM 4003-M	SM 4004-M	SM 4005-M	SM 4006-M	SM 4007-M	Units
	Marking	A1	A2	A3	A4	A5	A6	A7	
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 at $T_A=75\text{ }^{\circ}\text{C}$	$I_{(AV)}$	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							Amps
Maximum instantaneous forward voltage $I_F=1.0A$	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25\text{ }^{\circ}\text{C}$ $T_A=100\text{ }^{\circ}\text{C}$	$I_R$	5.0 50							$\mu\text{A}$
Typical junction capacitance(NOTE 1)	$C_J$	15							$\text{P}_F$
Operating temperature range	$T_J$	-55to+150							$^{\circ}\text{C}$
Storage temperature range	$T_{Stg}$	-55to+150							$^{\circ}\text{C}$

## NOTES:

(1) Measured at 1MHz and applied reverse voltage of 4.0VDC.

# RATINGS AND CHARACTERISTIC CURVES SM4001-M THRU SM4007-M

FIG.1 - TYPICAL FORWARD CURRENT DERATING CURVE

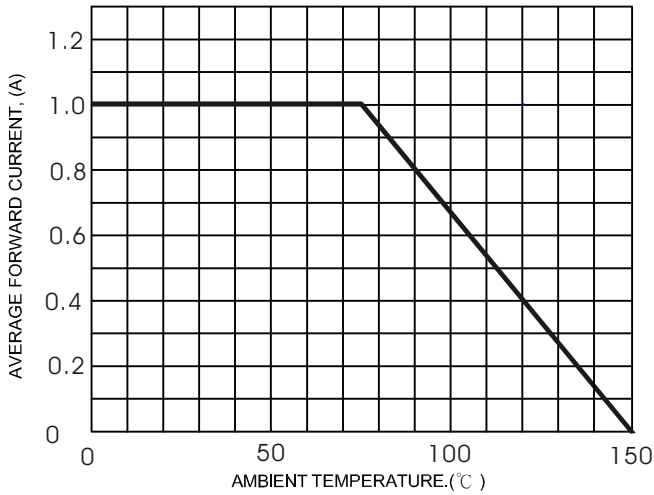


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

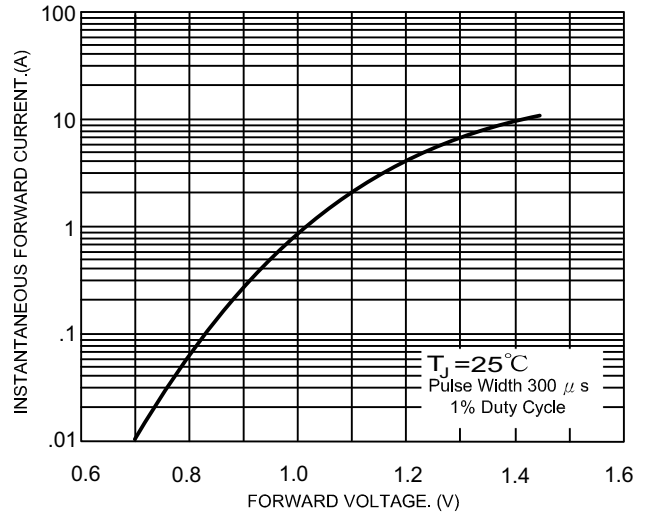


FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

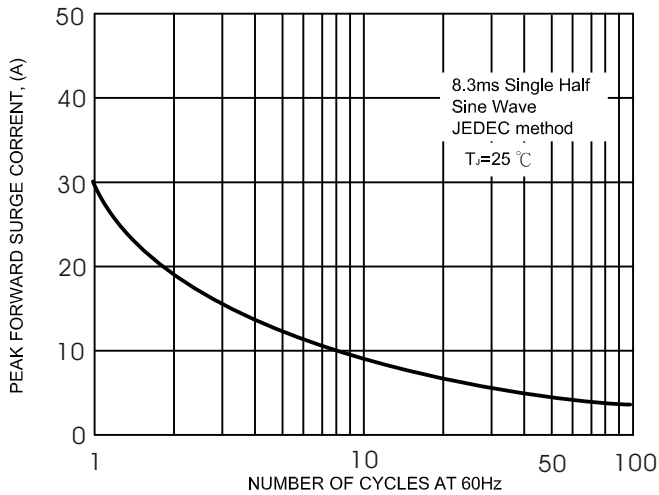


FIG.4- TYPICAL JUNCTION CAPACITANCE

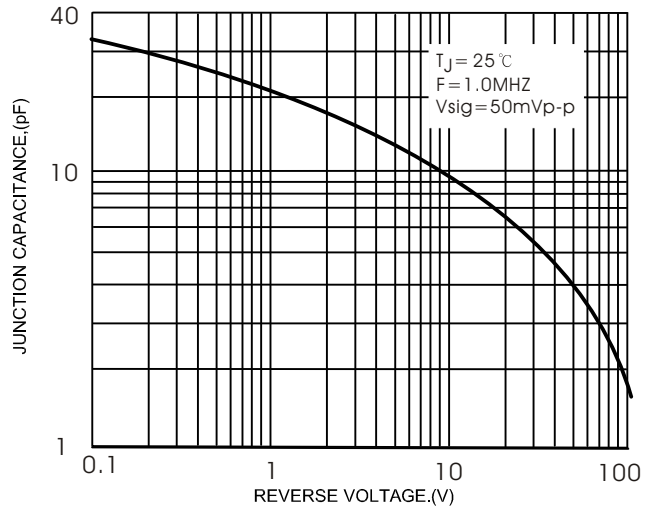


FIG.5- TYPICAL REVERSE CHARACTERISTICS

