

## Surface Mount Standard Recovery Glass Passivated Rectifiers

**REVERSE VOLTAGE  
50 TO 1000 VOLTS  
FORWARD CURRENT  
1.0 AMPERE**

### Features:

- \*For Surface Mount Application
- \*Glass Passivated Chip
- \*Low Reverse Leakage Current
- \*Low Forward Voltage Drop And High Current Capability
- \*Plastic Material Has UL Flammability Classification 94V-0

### Mechanical Data:

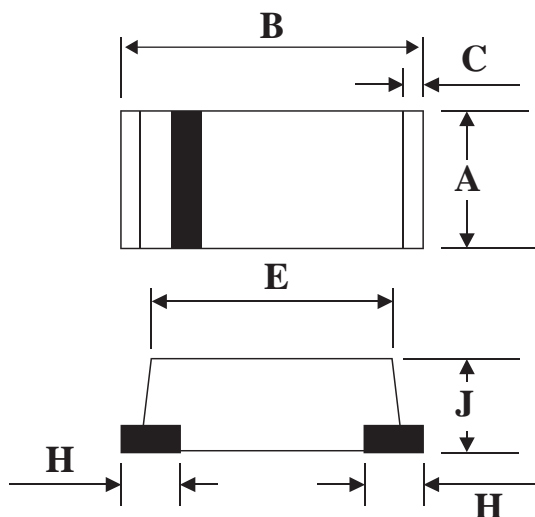
- \* Case: Molded Plastic, MINI-SMA(Similar to SOD-123F)
- \* Terminals: Solder Plated, Solderable per ML-STD-750 Method 2026
- \* Polarity: Indicated by Cathode Band
- \* Wight: 0.040 grams



**MINI-SMA  
(SOD-123F)**

## MINI-SMA Outline Dimension

unit:mm



### MINI-SMA

Dim	Min	Max
<b>A</b>	1.40	1.80
<b>B</b>	3.70	4.10
<b>C</b>	-	0.30(TYP)
<b>E</b>	2.80	3.20
<b>H</b>	-	0.90(TYP)
<b>J</b>	1.40	1.60

## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	FM 4001M	FM 4002M	FM 4003M	FM 4004M	FM 4005M	FM 4006M	FM 4007M	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75°C	IF(AV)	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	30							A
Maximum Instantaneous At 1.0A DC	VF	1.10							V
Maximum DC Reverse Current @T <sub>A</sub> =25°C At Rated DC Blocking Voltage @T <sub>A</sub> =100°C	IR	5.0 50							uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	15(TYP)							Pf
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	60(TYP)							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150							°C
Storage Temperature Range	TSTG	-55 to+150							°C

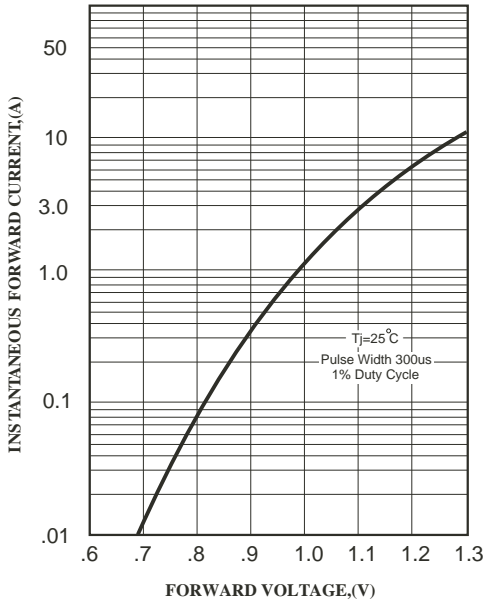
NOTES: 1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

2.Thermal Resistance Junction to Ambient.

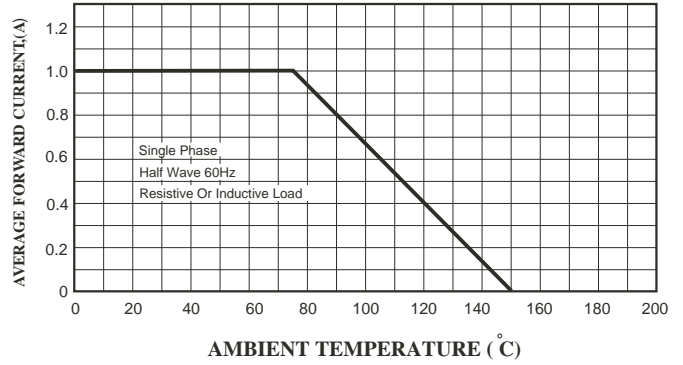
## Device Marking

Item	Marking	Item	Marking
FM4001M	A1	FM4005M	A5
FM4002M	A2	FM4006M	A6
FM4003M	A3	FM4007M	A7
FM4004M	A4		

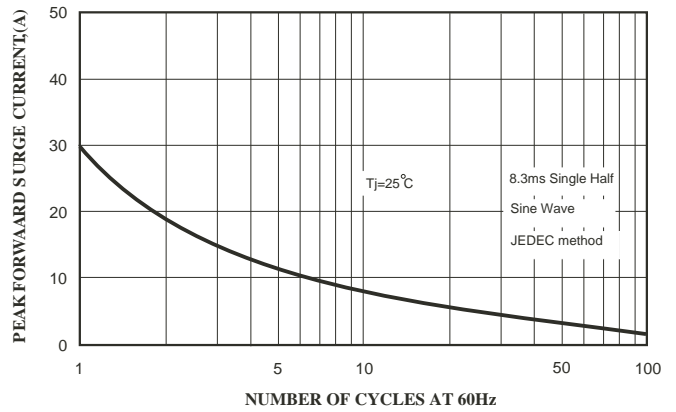
**FIG.1-TYPICAL FORWARD CHARACTERISTICS**



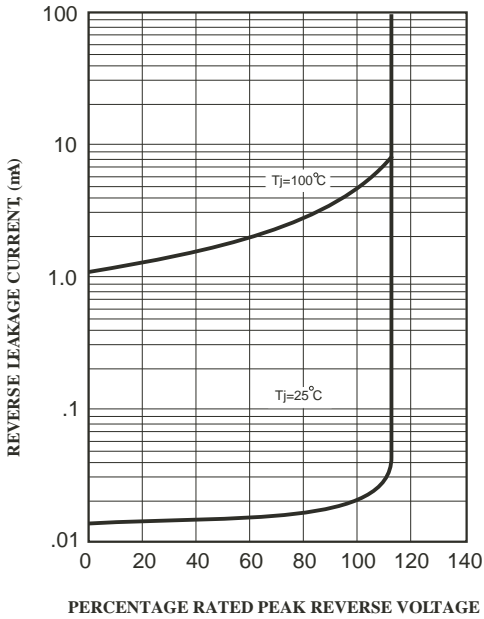
**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

