

## Surface Mount Standard Recovery

### Glass Passivated Rectifiers

 Lead(Pb)-Free

#### Features:

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound.
- \* For surface mounted applications.
- \* Exceeds environmental standards of MIL-S-19500 / 228
- \* Low leakage current.

#### Mechanical Data:

- \* Case : Molded plastic, JEDEC SOD-123H1
- \* Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity : Indicated by cathode band
- \* Mounting Position : Any
- \* Weight : 0.0103 gram

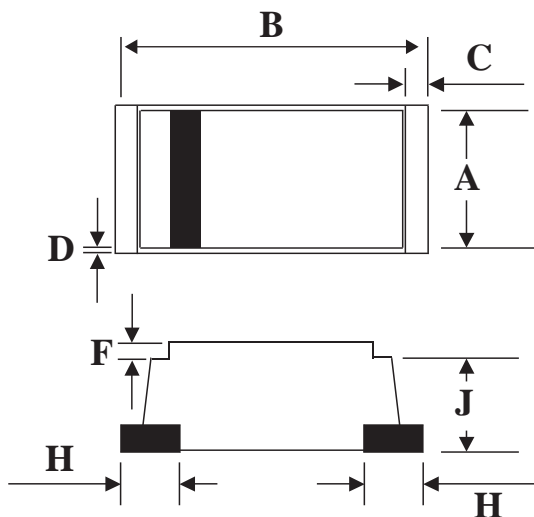
**REVERSE VOLTAGE**  
50 & 400 & 1000 VOLTS  
**FORWARD CURRENT**  
1.0 AMPERE



**SOD-123H1**

### SOD-123H1 Outline Dimension

unit:mm



| SOD-123H1 |           |     |
|-----------|-----------|-----|
| Dim       | Min       | Max |
| <b>A</b>  | 1.4       | 1.8 |
| <b>B</b>  | 3.3       | 3.7 |
| <b>C</b>  | 0.3(Typ.) |     |
| <b>D</b>  | 0.1(Typ.) |     |
| <b>F</b>  | 0.1(Typ.) |     |
| <b>H</b>  | 0.8(Typ.) |     |
| <b>J</b>  | 0.6       | 1.0 |

**Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  Unless Otherwise noted)

| <b>Characteristics</b>  | <b>Symbol</b>   | <b>FM4001<br/>MH1</b> | <b>FM4004<br/>MH1</b> | <b>FM4007<br/>MH1</b> | <b>Unit</b>                 |
|---|-----------------|-----------------------|-----------------------|-----------------------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM            | 50                    | 400                   | 1000                  | V                           |
| Maximum RMS Voltage   | VRMS            | 35                    | 280                   | 700                   | V                           |
| Maximum DC Blocking Voltage   | VDC             | 50                    | 400                   | 1000                  | V                           |
| Maximum Average Forward Rectified Current @ $T_A=75^{\circ}\text{C}$  | IF(AV)          | 1.0                   |                       |                       | A                           |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)                | IFSM            | 25                    |                       |                       | A                           |
| Maximum Instantaneous At 1.0A DC  | VF              | 1.10                  |                       |                       | V                           |
| Maximum DC Reverse Current @ $T_A=25^{\circ}\text{C}$<br>At Rated DC Blocking Voltage @ $T_A=100^{\circ}\text{C}$ | IR              | 5.0<br>50             |                       |                       | uA                          |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 15(TYP)               |                       |                       | PF                          |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 60(TYP)               |                       |                       | $^{\circ}\text{C}/\text{W}$ |
| Operating Temperature Range   | $T_J$           | -55 to+150            |                       |                       | $^{\circ}\text{C}$          |
| Storage Temperature Range   | TSTG            | -65 to+175            |                       |                       | $^{\circ}\text{C}$          |

**Device Marking**

| <b>Item</b>      | <b>Marking</b> |
|------------------|----------------|
| <b>FM4001MH1</b> | A1             |
| <b>FM4004MH1</b> | A4             |
| <b>FM4007MH1</b> | A7             |

**Rating and characteristic curves**

FIG.1-TYPICAL FORWARD CHARACTERISTICS

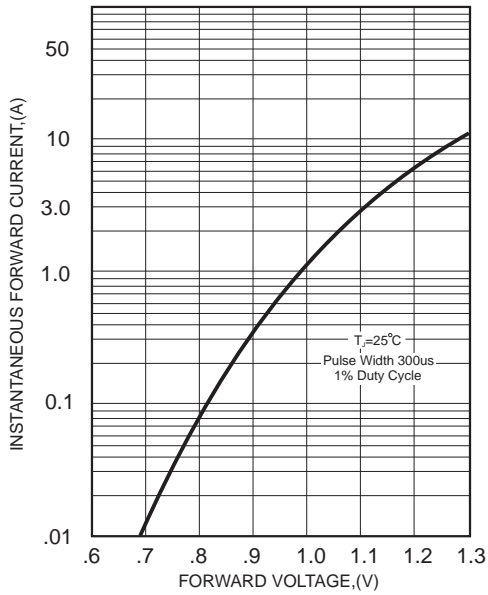


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

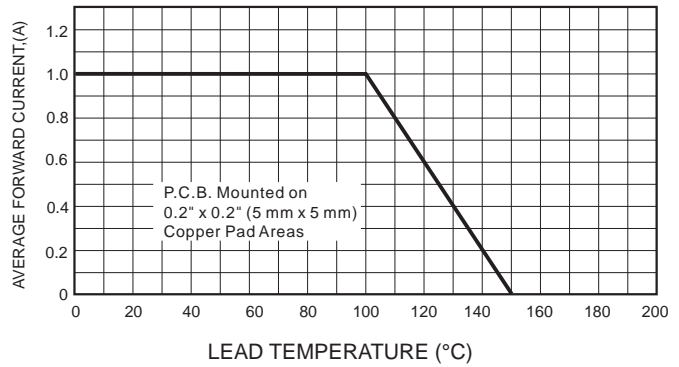


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

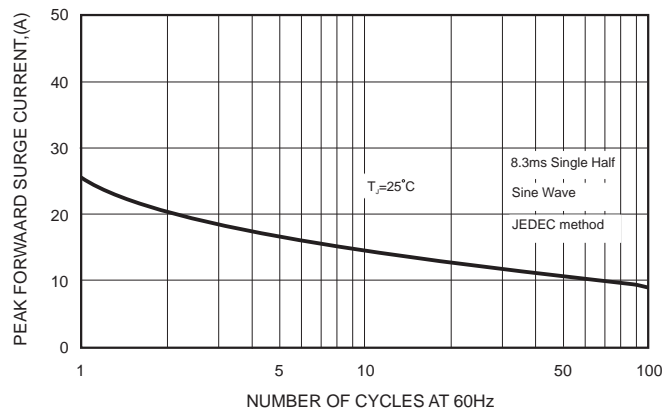


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

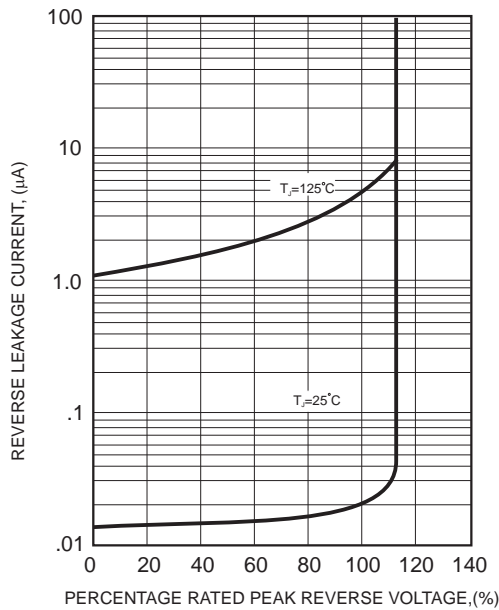


FIG.5-TYPICAL JUNCTION CAPACITANCE

