

# FM220-M THRU FM2100-M

Silicon epitaxial planer type

## Features

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

## Mechanical data

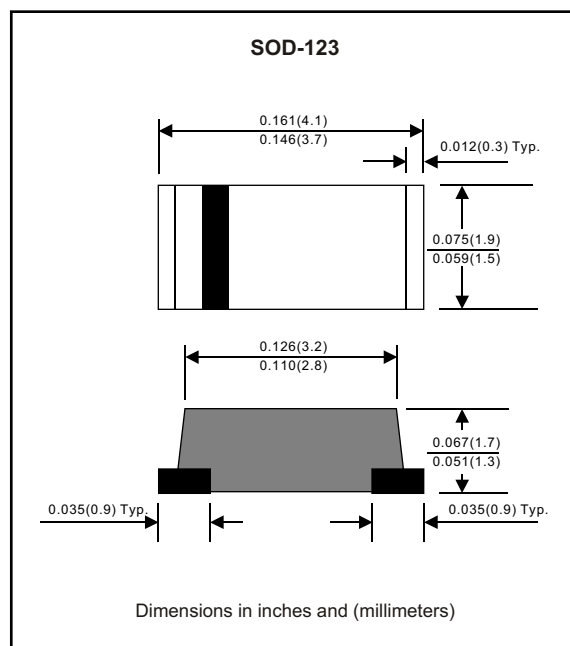
Case : Molded plastic, JEDEC SOD-123 / MINISMA

Terminals : Solder plated, solderable per ML-STD-750,  
Method 2026

Polarity : Indicated by cathode band

Mounting Position : Any

Weight : 0.04 gram



## MAXIMUM RATINGS (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER                  | CONDITIONS                                                            | Symbol    | MIN. | TYP. | MAX. | UNIT                          |
|----------------------------|-----------------------------------------------------------------------|-----------|------|------|------|-------------------------------|
| Forward rectified current  | See Fig.1                                                             | $I_0$     |      |      | 2.0  | A                             |
| Forward surge current      | 8.3ms single half sine-wave superimposed on rate load (JEDEC methode) | $I_{FSM}$ |      |      | 50   | A                             |
| Reverse current            | $V_R = V_{RRM} \quad T_A = 25^{\circ}\text{C}$                        | $I_R$     |      |      | 0.5  | mA                            |
|                            | $V_R = V_{RRM} \quad T_A = 125^{\circ}\text{C}$                       |           |      |      | 10   | mA                            |
| Thermal resistance         | Junction to ambient                                                   | $R_{JA}$  |      | 85   |      | $^{\circ}\text{C} / \text{W}$ |
| Diode junction capacitance | f=1MHz and applied 4vDC reverse voltage                               | $C_J$     |      | 160  |      | pF                            |
| Storage temperature        |                                                                       | $T_{STG}$ | -55  |      | +150 | $^{\circ}\text{C}$            |

| SYMBOLS  | MARKING CODE | V <sub>RRM</sub> <sup>*1</sup><br>(V) | V <sub>RMS</sub> <sup>*2</sup><br>(V) | V <sub>R</sub> <sup>*3</sup><br>(V) | V <sub>F</sub> <sup>*4</sup><br>(V) | Operating temperature<br>(°C) |
|----------|--------------|---------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|-------------------------------|
| FM220-M  | 22           | 20                                    | 14                                    | 20                                  | 0.50                                | -55 to +125                   |
| FM230-M  | 23           | 30                                    | 21                                    | 30                                  |                                     |                               |
| FM240-M  | 24           | 40                                    | 28                                    | 40                                  |                                     |                               |
| FM250-M  | 25           | 50                                    | 35                                    | 50                                  | 0.70                                | -55 to +150                   |
| FM260-M  | 26           | 60                                    | 42                                    | 60                                  |                                     |                               |
| FM280-M  | 28           | 80                                    | 56                                    | 80                                  | 0.85                                |                               |
| FM2100-M | 20           | 100                                   | 70                                    | 100                                 |                                     |                               |

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage

## RATING AND CHARACTERISTIC CURVES (FM220-M THRU FM2100-M)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

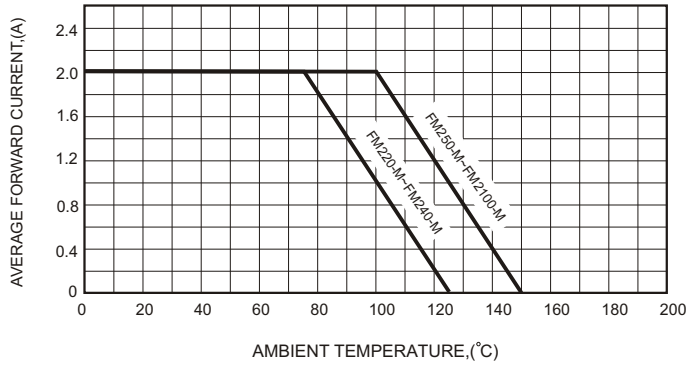


FIG.2-TYPICAL FORWARD CHARACTERISTICS

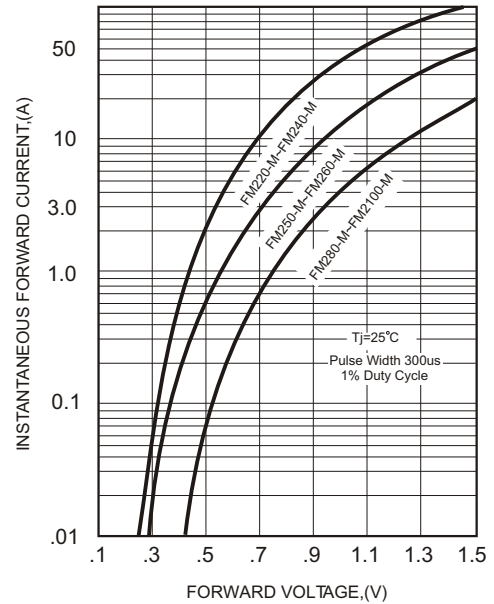


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

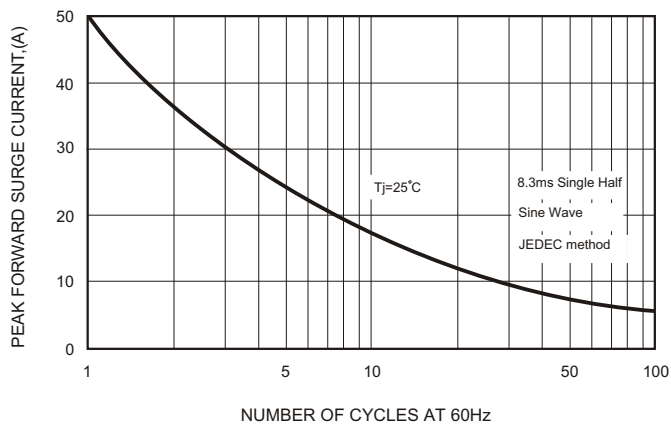


FIG.4-TYPICAL JUNCTION CAPACITANCE

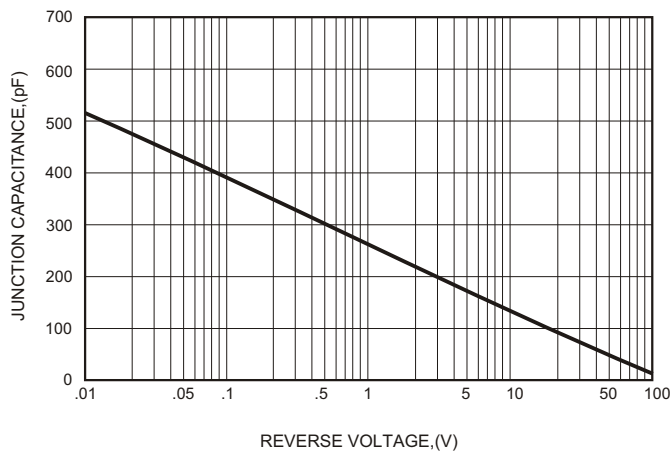


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

