

# FFM101 THRU FFM107

Fast recovery 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 MIL-S-19500 / 228
- Low leakage current

## Mechanical data

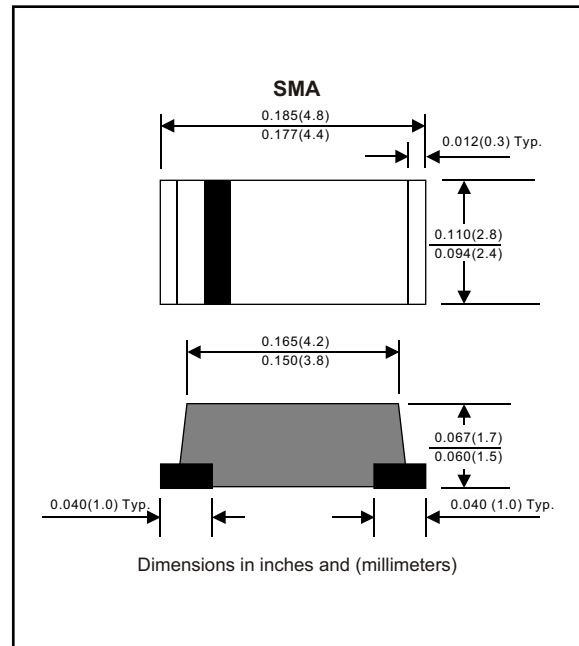
Case : Molded plastic, JEDEC DO-214AC

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

Polarity : Indicated by cathode band

Mounting Position : Any

Weight : 0.0015 ounce, 0.05 gram



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

| PARAMETER                  | CONDITIONS  | Symbol    | MIN. | TYP. | MAX. | UNIT                          |
|----------------------------|---|-----------|------|------|------|-------------------------------|
| Forward rectified current  | Ambient temperature = $55^{\circ}\text{C}$                            | $I_O$     |      |      | 1.0  | A                             |
| Forward surge current      | 8.3ms single half sine-wave superimposed on rate load (JEDEC methode) | $I_{FSM}$ |      |      | 30   | A                             |
| Reverse current            | $V_R = V_{RRM}$ $T_A = 25^{\circ}\text{C}$                            | $I_R$     |      |      | 5.0  | $\mu\text{A}$                 |
|                            | $V_R = V_{RRM}$ $T_A = 100^{\circ}\text{C}$                           |           |      |      | 100  | $\mu\text{A}$                 |
| Thermal resistance         | Junction to ambient   | $R_{QJA}$ |      | 32   |      | $^{\circ}\text{C} / \text{w}$ |
| Diode junction capacitance | $f=1\text{MHz}$ and applied 4vDC reverse voltage                      | $C_J$     |      | 15   |      | pF                            |
| Storage temperature        |   | $T_{STG}$ | -55  |      | +150 | $^{\circ}\text{C}$            |

| SYMBOLS | MARKING CODE | $V_{RRM}^{*1}$<br>(V) | $V_{RMS}^{*2}$<br>(V) | $V_R^{*3}$<br>(V) | $V_F^{*4}$<br>(V) | $T_{RR}^{*5}$<br>(nS) | Operating temperature<br>( $^{\circ}\text{C}$ ) |
|---------|--------------|-----------------------|-----------------------|-------------------|-------------------|-----------------------|---|
| FFM101  | F11          | 50                    | 35                    | 50                | 1.3               | 150                   | -55 to +150                                     |
| FFM102  | F12          | 100                   | 70                    | 100               |                   |                       |   |
| FFM103  | F13          | 200                   | 140                   | 200               |                   |                       |   |
| FFM104  | F14          | 400                   | 280                   | 400               |                   | 250                   |   |
| FFM105  | F15          | 600                   | 420                   | 600               |                   |                       |   |
| FFM106  | F16          | 800                   | 560                   | 800               |                   | 500                   |   |
| FFM107  | F17          | 1000                  | 700                   | 1000              |                   |                       |   |

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage

\*5 Reverse recovery time

# RATING AND CHARACTERISTIC CURVES (FFM101 THRU FFM107)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

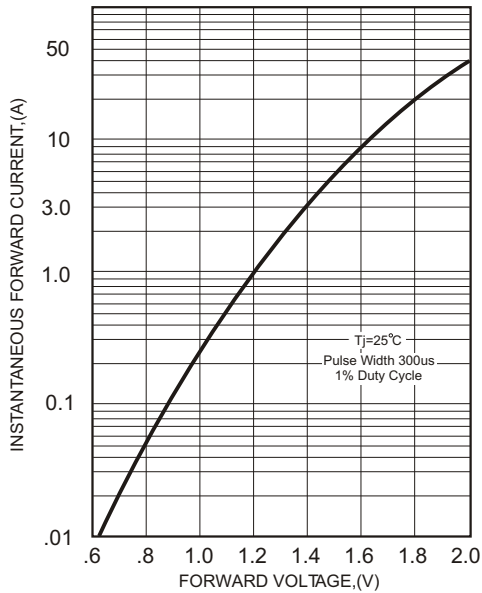


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

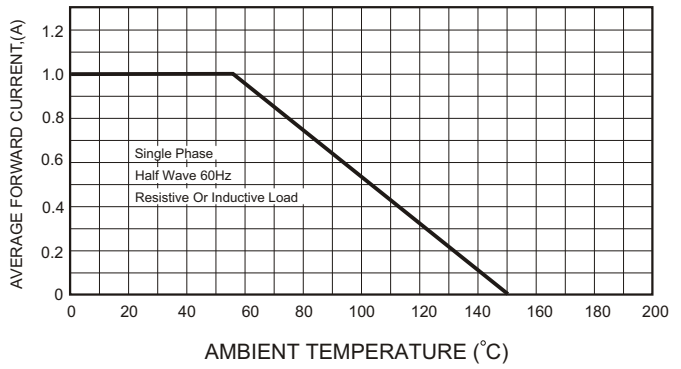


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

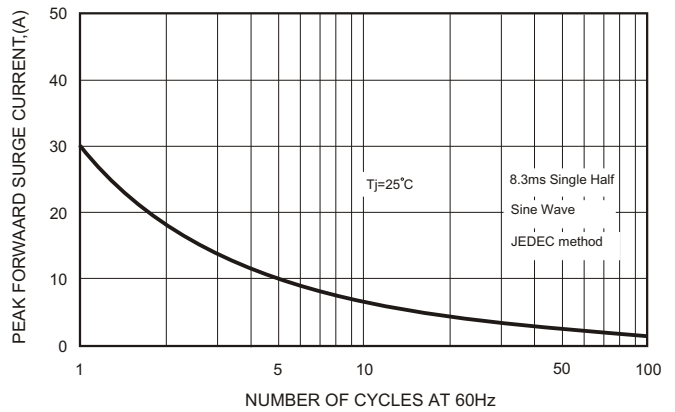
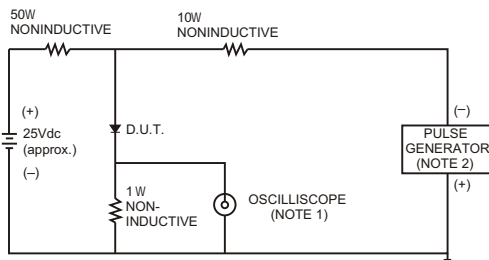


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.  
 2. Rise Time= 10ns max., Source Impedance= 50 ohms.

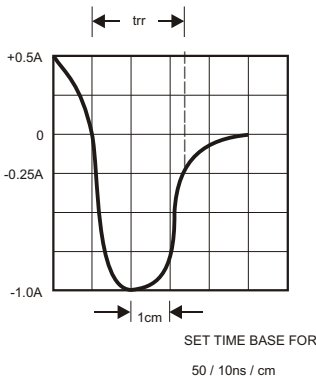


FIG.5-TYPICAL JUNCTION CAPACITANCE

