

***SURFACE MOUNT GLASS PASSIVATED  
FAST RECOVERY SILICON RECTIFIER***  
***VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere***

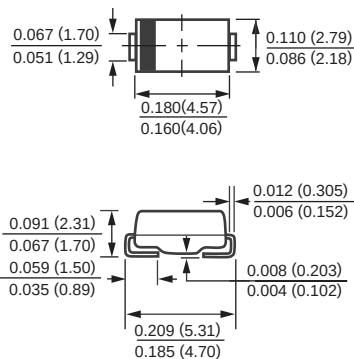
**FEATURES**

- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.057 gram

**MECHANICAL DATA**

- \* Epoxy : Device has UL flammability classification 94V-0

**DO-214AC**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%.

**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS                                                                                           | SYMBOL        | FFM101       | FFM102 | FFM103 | FFM104 | FFM105 | FFM106 | FFM107 | UNITS |
|---------------------------------------------------------------------------------------------------|---------------|--------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                            | VRRM          | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum RMS Voltage                                                                               | VRMS          | 35           | 70     | 140    | 280    | 420    | 560    | 700    | Volts |
| Maximum DC Blocking Voltage                                                                       | VDC           | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum Average Forward Rectified Current at TA = 55°C                                            | IO            | 1.0          |        |        |        |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM          | 30           |        |        |        |        |        |        | Amps  |
| Maximum Thermal Resistance                                                                        | (Note 2) RθJL | 30           |        |        |        |        |        |        | °C/W  |
|                                                                                                   | (Note 3) RθJA | 70           |        |        |        |        |        |        | °C/W  |
| Typical Junction Capacitance (Note 1)                                                             | CJ            | 15           |        |        |        |        |        |        | pF    |
| Operating and Storage Temperature Range                                                           | TJ, TSTG      | -55 to + 150 |        |        |        |        |        |        | °C    |

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS                                                  | SYMBOL | FFM101 | FFM102 | FFM103 | FFM104 | FFM105 | FFM106 | FFM107 | UNITS |
|------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Forward Voltage at 1.0A DC                               | VF     | 1.3    |        |        |        |        |        |        | Volts |
| Maximum Full Load Reverse Current, Full cycle Average at TA=25°C | IR     | 50     |        |        |        |        |        |        | uAmps |
| Maximum DC Reverse Current at @TA = 25°C                         |        | 5.0    |        |        |        |        |        |        | uAmps |
| Rated DC Blocking Voltage @TA = 125°C                            |        | 100    |        |        |        |        |        |        | uAmps |
| Maximum Reverse Recovery Time (Note 4)                           | trr    | 150    |        |        |        | 250    | 500    |        | nSec  |

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC  
2. Thermal resistance junction to terminal 6.0mm<sup>2</sup> copper pads to each terminal.  
3. Thermal resistance junction to ambient, 6.0mm<sup>2</sup> copper pads to each terminal.  
4. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A

## RATING AND CHARACTERISTIC CURVES ( FFM101 THRU FFM107 )

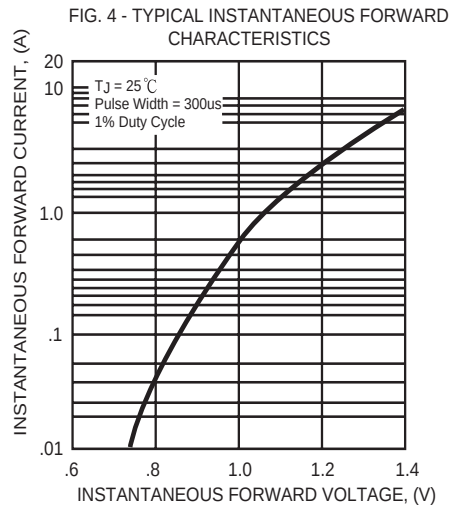
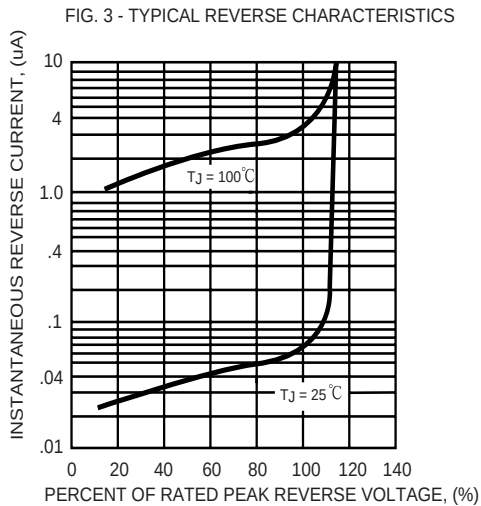
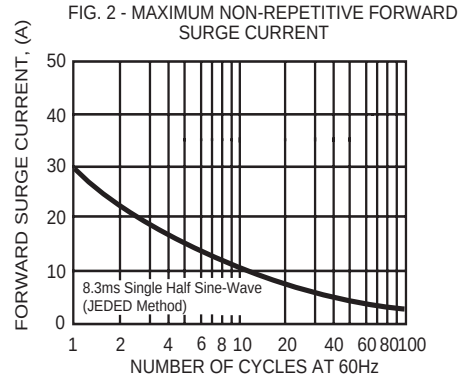
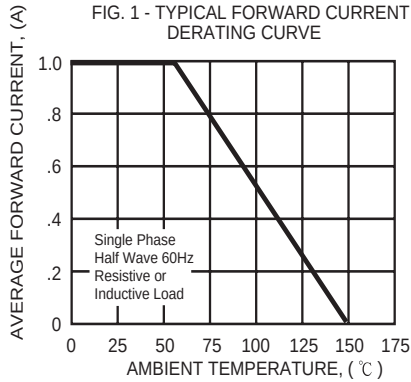
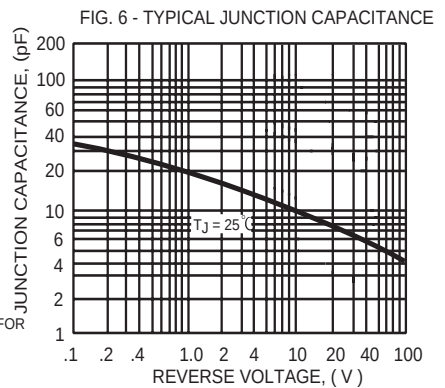
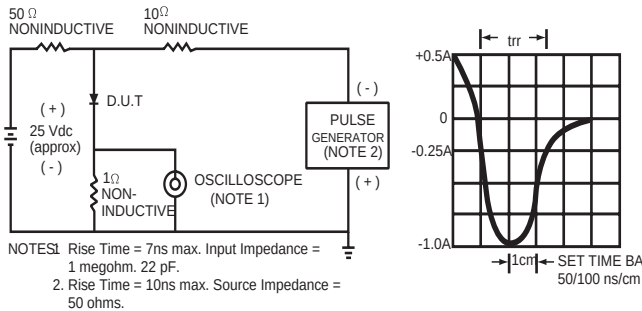
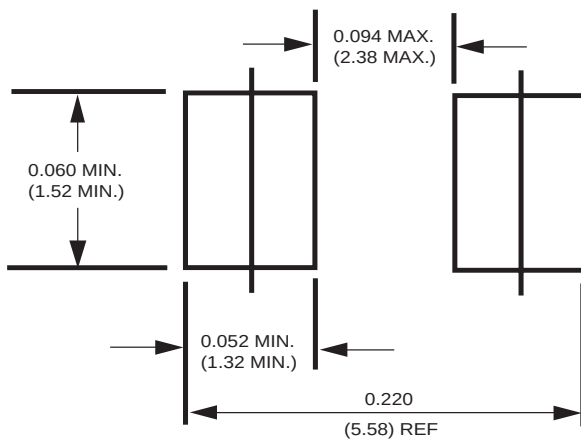


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



## Mounting Pad Layout



Dimensions in inches and (millimeters)