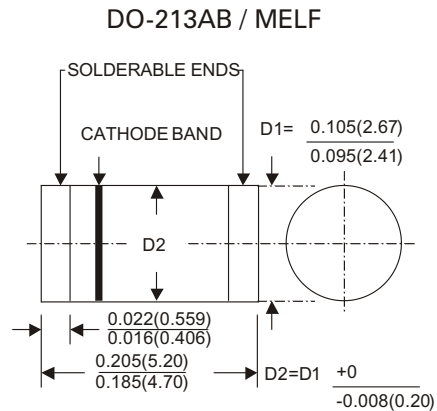


# FSM151 thru FSM157

## SURFACE MOUNT FAST RECOVERY GLASS PASSIVATED RECTIFIERS



Dimension in inches (millimeters)

### FEATURES

- Ideal for surface mounted applications
- Easy pick and place
- Built-in strain relief
- Glass passivated chips

### MECHANICAL DATA

Case : Molded plastic use UL94V-0 recognized flame retardant epoxy

Terminals : Plated terminals, solderable per MIL-STD-202, Method 208

Polarity : Red Color band on body denotes cathode

Mounting position : Any

Weight : 0.12grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temp. unless otherwise specified  
Single phase, half sine wave, 60Hz, resistive or inductive load  
For capacitive load, derate current by 20%

|  | SYMBOL     | FSM151      | FSM152 | FSM153 | FSM154 | FSM155 | FSM156 | FSM157 | UNITS            |
|--|------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Maximum Current Peak Reverse Voltage   | $V_{RRM}$  | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | Volts            |
| Maximum RMS Voltage  | $V_{RMS}$  | 35          | 70     | 140    | 280    | 420    | 560    | 700    | Volts            |
| Maximum DC Blocking Voltage  | $V_{DC}$   | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | Volts            |
| Maximum Average Forward Rectified Current at $T_A=55^\circ\text{C}$                                    | $I_{(AV)}$ | 1.5         |        |        |        |        |        |        | Amps             |
| Peak Forward Surge Current Single Sine-Wave on Rated Load (JEDEC Method) $T_A=75^\circ\text{C}$        | $I_{FSM}$  | 50          |        |        |        |        |        |        | Amps             |
| Maximum Instantaneous Forward Voltage Drop at 1.5A DC  | $V_F$      | 1.3         |        |        |        |        |        |        | Volts            |
| Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$ | $I_R$      | 5.0<br>100  |        |        |        |        |        |        | $\mu\text{A}$    |
| Typical Reverse Recovery Time  | $T_{RR}$   | 150         |        |        |        | 250    | 500    |        | nS               |
| Typical Junction Capacitance   | $C_J$      | 25          |        |        |        |        |        |        | pF               |
| Operating Junction Temperature Range   | $T_J$      | -65 to +120 |        |        |        |        |        |        | $^\circ\text{C}$ |
| Storage Temperature Range  | $T_{STG}$  | -65 to +150 |        |        |        |        |        |        | $^\circ\text{C}$ |

#### NOTES :

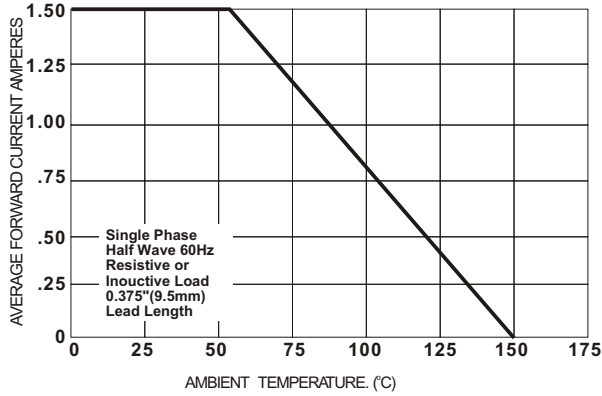
1. Reverse Recovery Test Conditions :  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C

# FSM151 thru FSM157

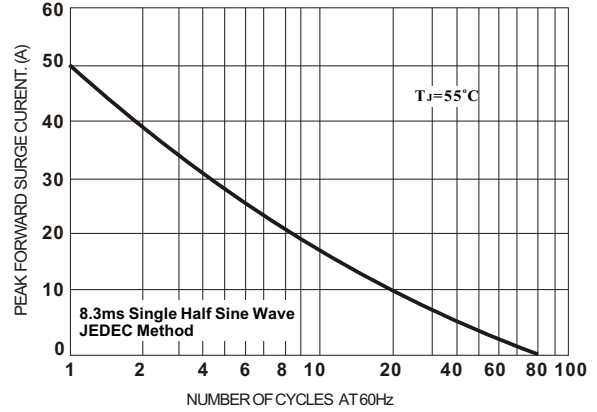
## SURFACE MOUNT FAST RECOVERY GLASS PASSIVATED RECTIFIERS

### RATING AND CHARACTERISTICS CURVES FSM151 THRU FSM157

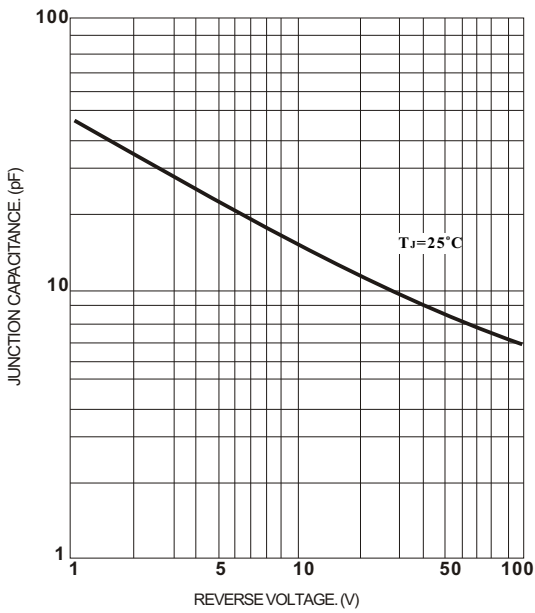
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



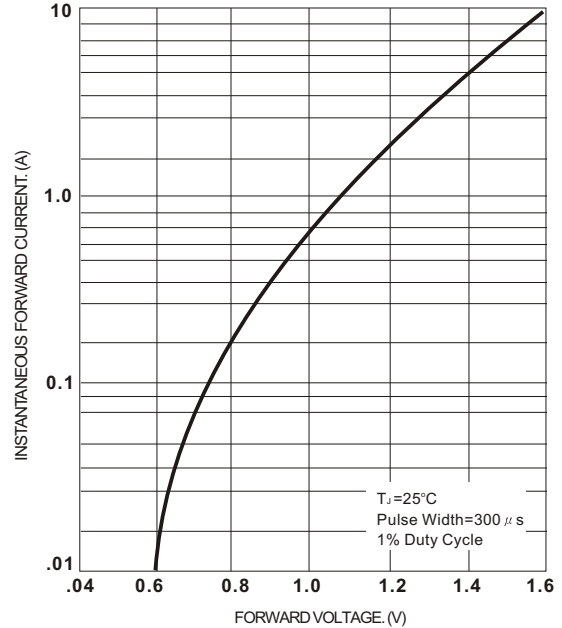
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



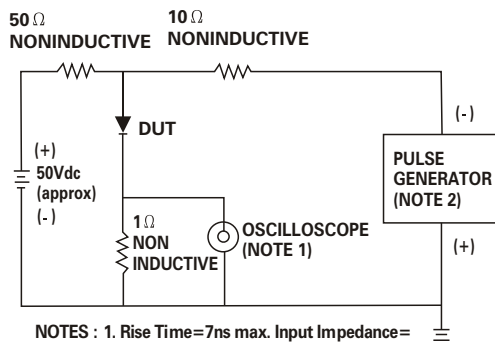
**FIG. 3 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG. 5 - EVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



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

