



# SS3A - SS3M

**PRV : 50 - 1000 Volts**  
**Io : 3.0 Amperes**

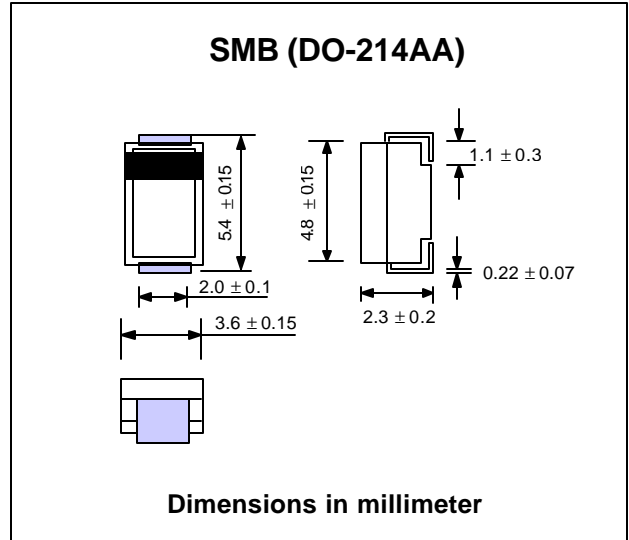
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Super fast recovery time

## MECHANICAL DATA :

- \* Case : SMB Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.093 gram

# SURFACE MOUNT SUPER FAST RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

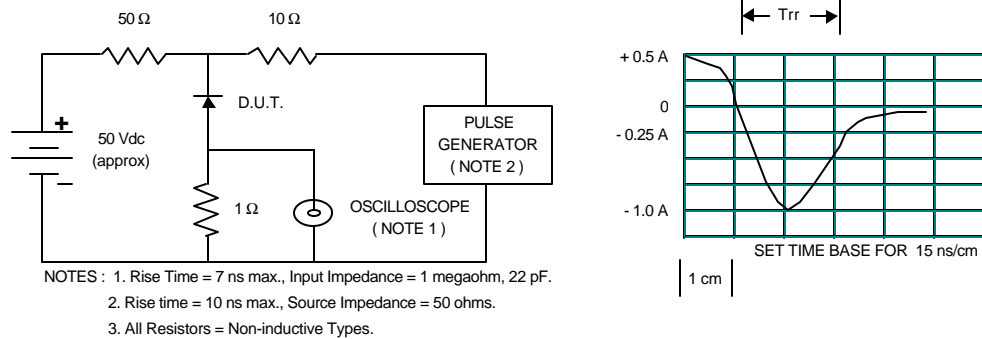
| RATING  | SYMBOL | SS3A          | SS3B | SS3C | SS3D | SS3E | SS3G | SS3J | SS3K | SS3M | UNITS |
|---|--------|---------------|------|------|------|------|------|------|------|------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | Volts |
| Maximum RMS Voltage   | VRMS   | 35            | 70   | 105  | 140  | 210  | 280  | 420  | 560  | 700  | Volts |
| Maximum DC Blocking Voltage   | VDC    | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | Volts |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length Ta = 55 °C                                 | IF(AV) | 3.0           |      |      |      |      |      |      |      |      | Amps. |
| Peak Forward Surge Current,<br>8.3ms Single half sine wave<br>Superimposed on rated load (JEDEC Method) | IFSM   | 125           |      |      |      |      |      |      |      |      | Amps. |
| Maximum Peak Forward Voltage at IF = 3.0 Amps.  | VF     | 0.95          |      |      | 1.4  |      |      | 1.7  |      |      | Volts |
| Maximum DC Reverse Current Ta = 25 °C<br>at Rated DC Blocking Voltage Ta = 100 °C                       | IR     | 5             |      |      |      |      |      |      |      |      | µA    |
|   | IR(H)  | 50            |      |      |      |      |      |      |      |      | µA    |
| Maximum Reverse Recovery Time ( Note 1 )  | Trr    | 35            |      |      |      |      |      |      |      |      | ns    |
| Typical Junction Capacitance ( Note 2 )   | CJ     | 50            |      |      |      |      |      |      |      |      | pf    |
| Junction Temperature Range  | TJ     | - 65 to + 150 |      |      |      |      |      |      |      |      | °C    |
| Storage Temperature Range   | TSTG   | - 65 to + 150 |      |      |      |      |      |      |      |      | °C    |

### Notes :

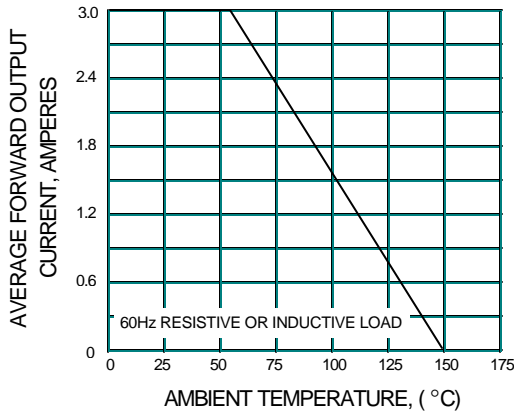
- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 VDC

## RATING AND CHARACTERISTIC CURVES ( SS3A - SS3M )

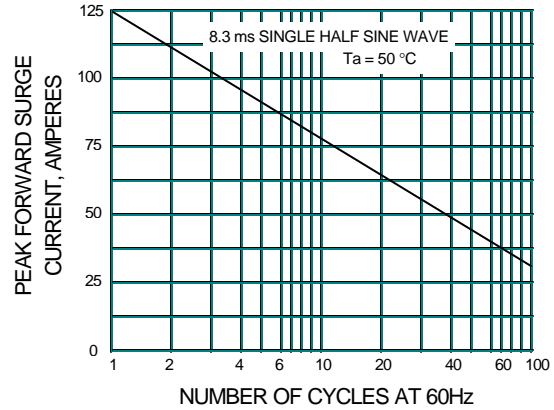
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



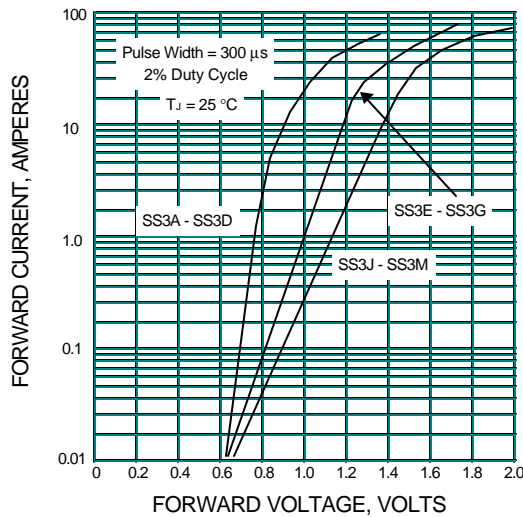
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

