

## SS3A - SS3M

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

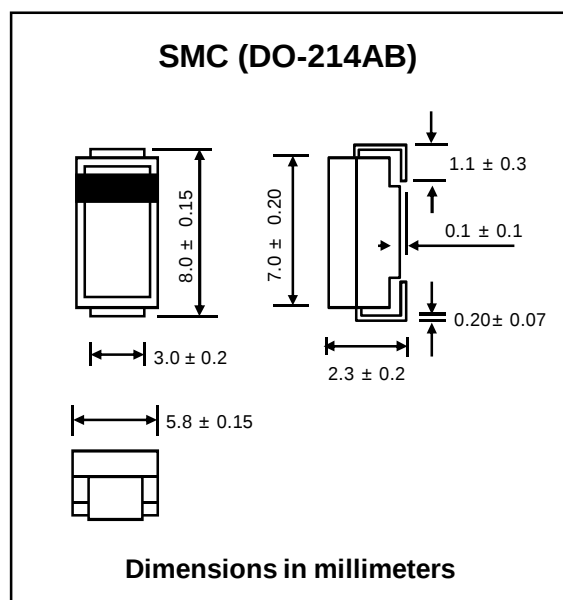
### FEATURES :

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

### MECHANICAL DATA :

- \* Case : SMC Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.21 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 | UNIT |
|----------------------------------------------------------------------------------------------------------------|--------|---------------|------|------|------|------|------|------|------|------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                         | VRRM   | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | V    |
| Maximum RMS Voltage                                                                                            | VRMS   | 35            | 70   | 105  | 140  | 210  | 280  | 420  | 560  | 700  | V    |
| Maximum DC Blocking Voltage                                                                                    | VDC    | 50            | 100  | 150  | 200  | 300  | 400  | 600  | 800  | 1000 | V    |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length           Ta = 55 °C                              | IF(AV) | 3.0           |      |      |      |      |      |      |      |      | A    |
| Maximum Peak Forward Surge Current<br>8.3ms Single half sine wave<br>Superimposed on rated load (JEDEC Method) | IFSM   | 125           |      |      |      |      |      |      |      |      | A    |
| Maximum Peak Forward Voltage at IF = 3.0 A                                                                     | VF     | 0.95          |      |      | 1.7  |      |      | 4.0  |      |      | V    |
| Maximum DC Reverse Current   Tj = 25 °C<br>at Rated DC Blocking Voltage   Tj = 100 °C                          | IR     | 10            |      |      |      |      |      |      |      |      | μA   |
|                                                                                                                | IR(H)  | 500           |      |      |      |      |      |      |      |      |      |
| 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 : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>

## RATING AND CHARACTERISTIC CURVES ( SS3A - SS3M )

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

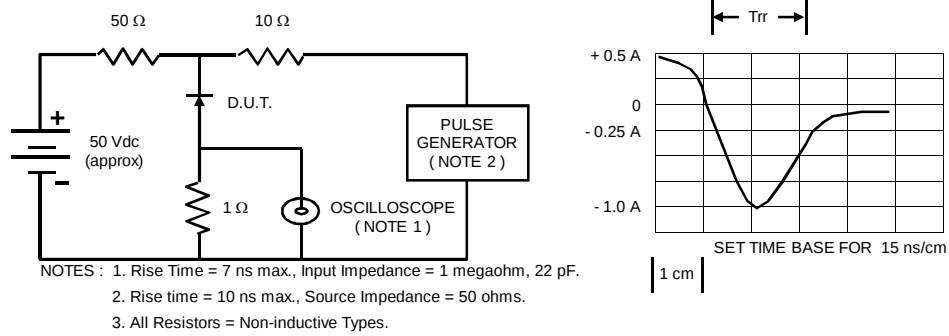


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

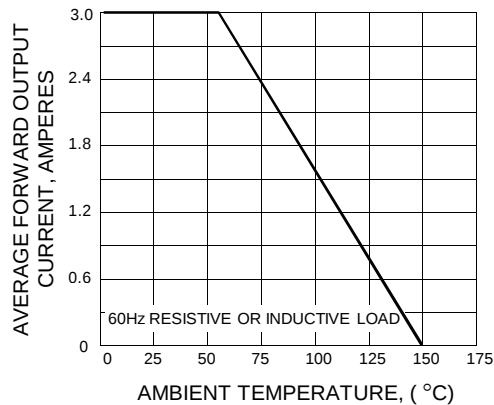


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

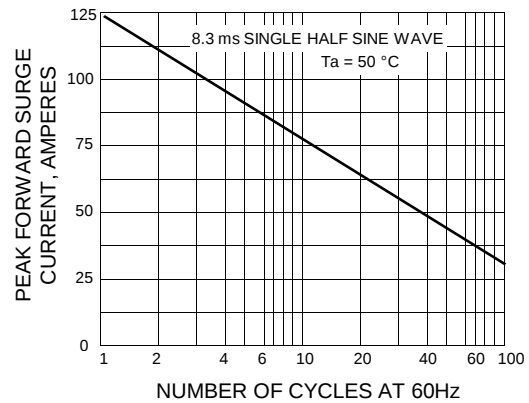


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

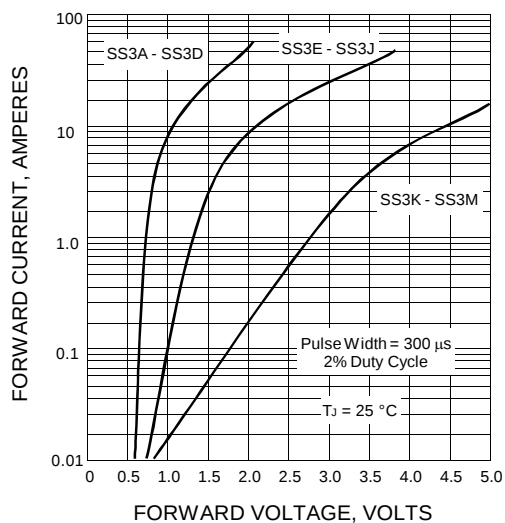


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

