

# SN5A - SN5M

**PRV : 50 - 1000 Volts**

**Io : 5.0 Amperes**

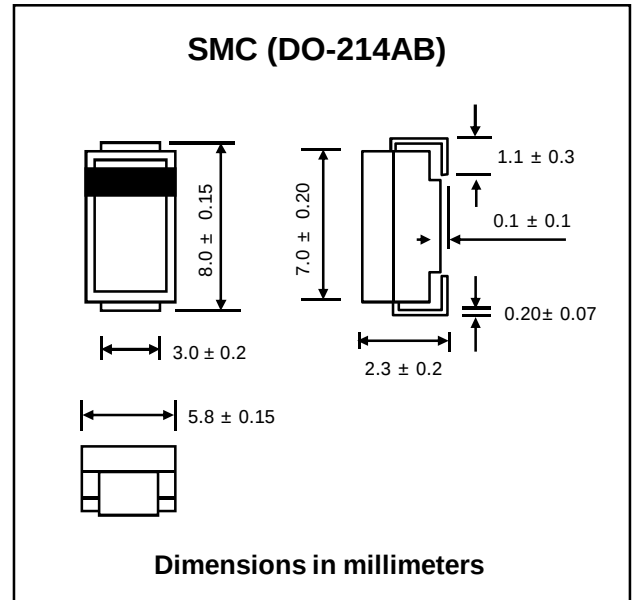
## FEATURES :

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

## MECHANICAL DATA :

- \* Case : SMC Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.21 gram

## SURFACE MOUNT 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%

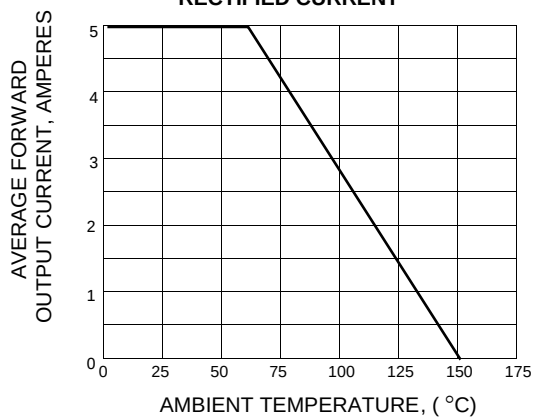
| RATING                                                                                                 | SYMBOL     | SN5A          | SN5B | SN5D | SN5G | SN5J | SN5K | SN5M | UNIT             |
|--------------------------------------------------------------------------------------------------------|------------|---------------|------|------|------|------|------|------|------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                | $V_{RRM}$  | 50            | 100  | 200  | 400  | 600  | 800  | 1000 | V                |
| Maximum RMS Voltage                                                                                    | $V_{RMS}$  | 35            | 70   | 140  | 280  | 420  | 560  | 700  | V                |
| Maximum DC Blocking Voltage                                                                            | $V_{DC}$   | 50            | 100  | 200  | 400  | 600  | 800  | 1000 | V                |
| Maximum Average Forward Current $T_a = 60^\circ\text{C}$                                               | $I_F$      | 5.0           |      |      |      |      |      |      | A                |
| Peak Forward Surge Current<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$  | 300           |      |      |      |      |      |      | A                |
| Maximum Forward Voltage at $I_F = 5.0$ Amps.                                                           | $V_F$      | 1.1           |      |      |      |      |      |      | V                |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$                                                    | $I_R$      | 20            |      |      |      |      |      |      | $\mu\text{A}$    |
| at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$                                                 | $I_{R(H)}$ | 50            |      |      |      |      |      |      | $\mu\text{A}$    |
| Typical Junction Capacitance (Note1)                                                                   | $C_J$      | 50            |      |      |      |      |      |      | pF               |
| Junction Temperature Range                                                                             | $T_J$      | - 65 to + 175 |      |      |      |      |      |      | $^\circ\text{C}$ |
| Storage Temperature Range                                                                              | $T_{STG}$  | - 65 to + 175 |      |      |      |      |      |      | $^\circ\text{C}$ |

### Notes :

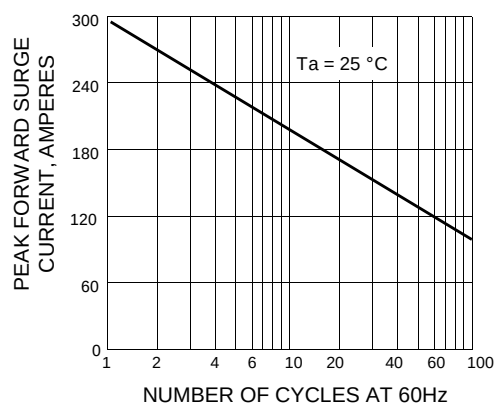
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

## RATING AND CHARACTERISTIC CURVES ( SN5A - SN5M )

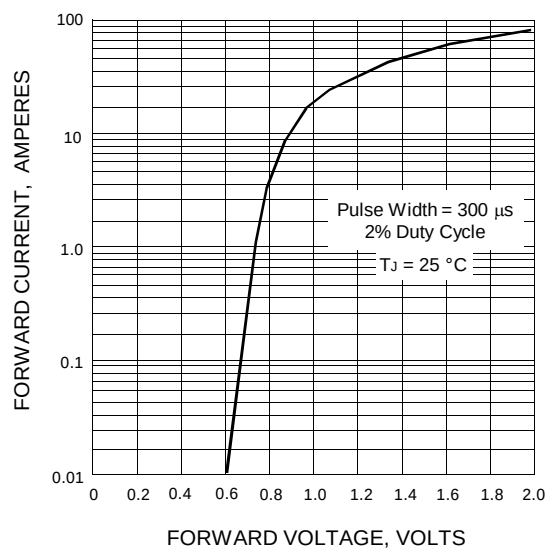
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



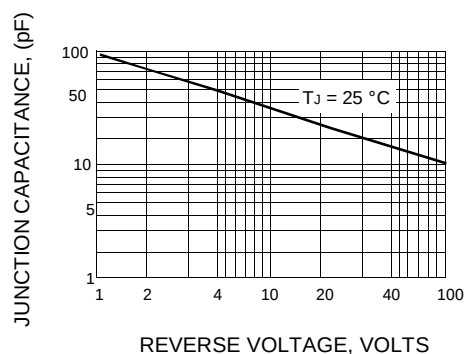
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

