

# GN3A - GN3M

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

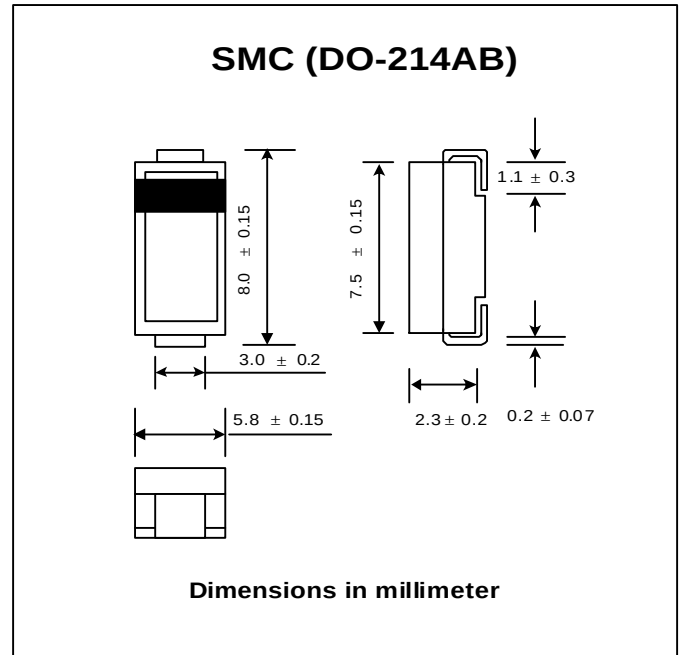
## FEATURES :

- \* Glass passivated chip
- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop

## 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

## GLASS PASSIVATED JUNCTION SILICON SURFACE MOUNT



## 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%.

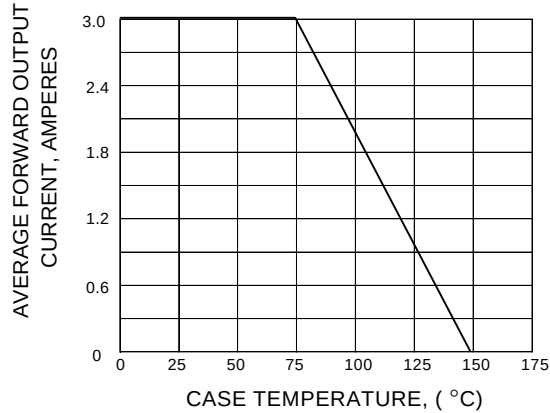
| RATING                                                                                                 | SYMBOL      | GN3A          | GN3B | GN3D | GN3G | GN3J | GN3K | GN3M | UNIT               |
|--------------------------------------------------------------------------------------------------------|-------------|---------------|------|------|------|------|------|------|--------------------|
| 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 $T_a = 75\text{ }^{\circ}\text{C}$                                     | $I_{F(AV)}$ | 3.0           |      |      |      |      |      |      | A                  |
| Peak Forward Surge Current<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$   | 150           |      |      |      |      |      |      | A                  |
| Maximum Forward Voltage at $I_F = 3.0\text{ Amps.}$                                                    | $V_F$       | 1.0           |      |      |      |      |      |      | V                  |
| Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$                                          | $I_R$       | 5.0           |      |      |      |      |      |      | $\mu\text{A}$      |
| at rated DC Blocking Voltage $T_a = 100\text{ }^{\circ}\text{C}$                                       | $I_{R(H)}$  | 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 |      |      |      |      |      |      | $^{\circ}\text{C}$ |

### Note :

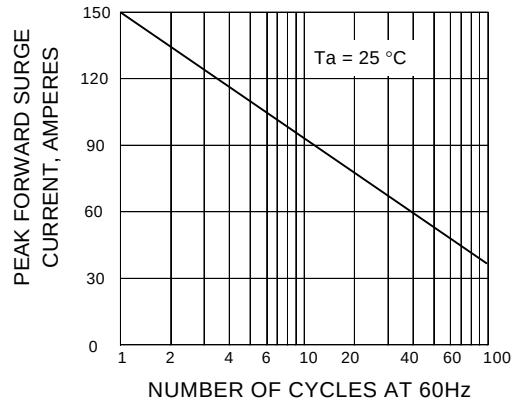
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>DC</sub>

## RATING AND CHARACTERISTIC CURVES ( GN3A - GN3M )

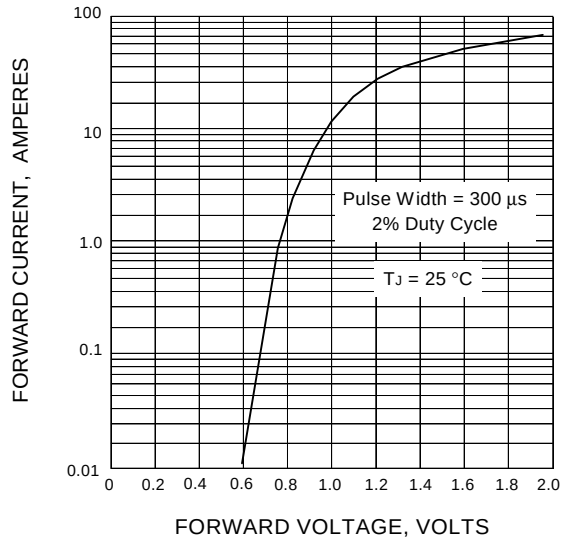
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



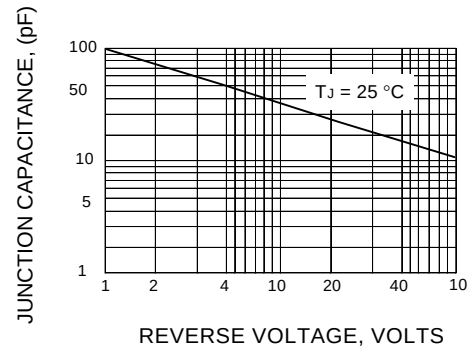
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

