



# GN3A thru GN3M

Surface Mount Glass Passivated Rectifiers  
Reverse Voltage 50 to 1000 Volts Forward Current 3.0 Amperes

## Features

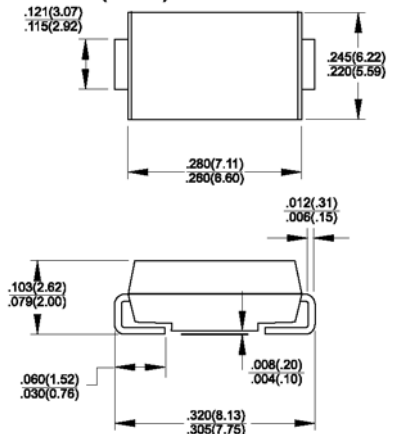
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Glass passivated chip junction



## Mechanical Data

- ◆ Case: JEDEC DO-214AB (SMC) molded plastic body over glass passivated chip
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
High temperature soldering:  
260°C/10 seconds at terminals
- ◆ Polarity: Color band denotes cathode end
- ◆ Weight: 0.009 ounce, 0.25 gram

DO-214AB (SMC)



## Maximum Ratings and Electrical Characteristics

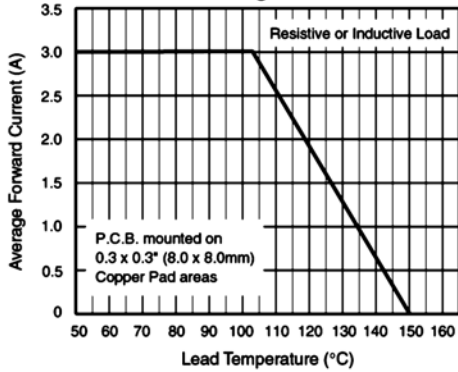
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	GN3A	GN3B	GN3D	GN3G	GN3J	GN3K	GN3M	Units
Maximum repetitive 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 $T_A=103^\circ\text{C}$ (1)	$I_{F(AV)}$				3.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_A=75^\circ\text{C}$	$I_{FSM}$				100.0				Amps
Maximum instantaneous forward voltage at 2.5A	$V_F$				1.15				Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	$I_R$				10.0 250				$\mu\text{A}$
Typical reverse recovery time at $I_R=0.5\text{A}$ , $I_F=1.0\text{A}$ , $I_R=0.25\text{A}$	$t_{rr}$				1.0				$\mu\text{s}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$				60				pF
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$ $R_{\theta JL}$				47 13				$^\circ\text{C/W}$
Operating junction temperature range	$T_J$				-55 to +150				$^\circ\text{C}$
Storage temperature range	$T_{STG}$				-55 to +150				$^\circ\text{C}$

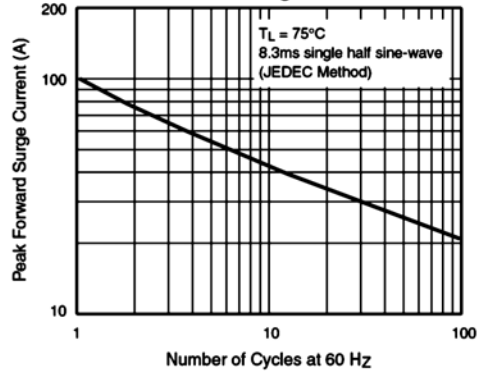
Notes: 1. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES

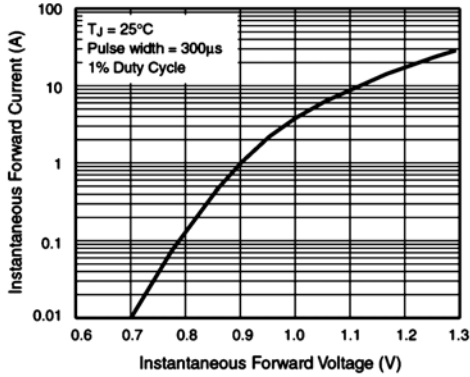
**Fig. 1 - Forward Current Derating Curve**



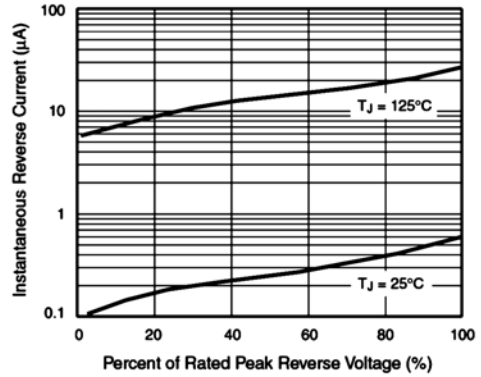
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



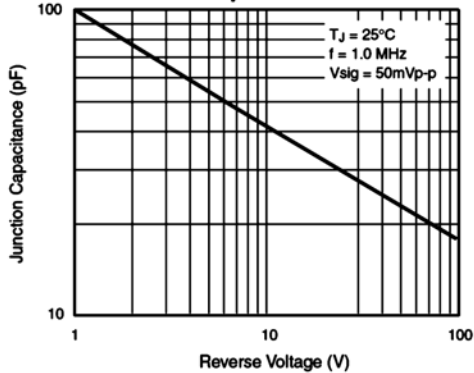
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

