



# GN3A THRU GN3M

## SURFACE MOUNT GLASS PASSIVATED JUNCTION RECTIFIER

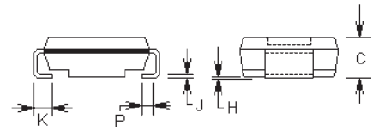
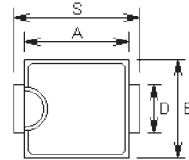
Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

### Features

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- High temperature soldering: 260°C/10 seconds at terminals

SMC



### Mechanical Data

- **Case:** SMC molded plastic
- **Terminals:** Solder plated solderable per MIL-STD-750, method 2026
- **Polarity:** Indicated by cathode band
- **Weight:** 0.007 ounce, 0.25 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.260	0.280	6.60	7.11	
B	0.220	0.240	5.59	6.10	
C	0.075	0.095	1.90	2.41	
D	0.115	0.121	2.92	3.07	
H	0.0020	0.0080	0.051	0.152	
J	0.006	0.012	0.15	0.30	
K	0.030	0.050	0.76	1.27	
P	0.020 REF		0.51 REF		
S	0.305	0.320	7.75	8.13	

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	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 $T_c=75^\circ\text{C}$	$I_{(AV)}$				3.0				Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	$I_{FSM}$				100.0				Amps
Maximum instantaneous forward voltage at 3.0A	$V_F$				1.20				Volts
Maximum DC reverse current at rated DC blocking voltage $T_c=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$				5.0 250.0				$\mu\text{A}$
Typical reverse recovery time (Note 1)	$T_{rr}$				2.5				$\mu\text{S}$
Typical junction capacitance (Note 2)	$C_J$				60.0				$\mu\text{F}$
Maximum thermal resistance (Note 3)	$R_{\theta JL}$ $R_{\theta JA}$				13.0 47.0				$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_{STG}$				-55 to +150				$^\circ\text{C}$

Notes:

(1) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_T=0.25\text{A}$

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(3) 8.0mm<sup>2</sup> (0.013mm thick) land areas

# RATINGS AND CHARACTERISTIC CURVES

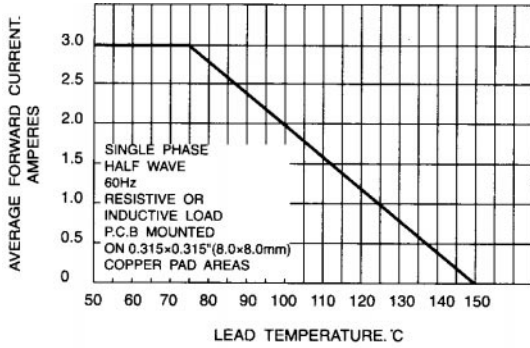


FIG. 1 - FORWARD CURRENT DERATING CURVE

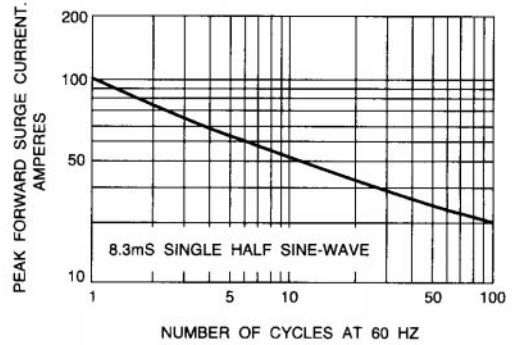


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

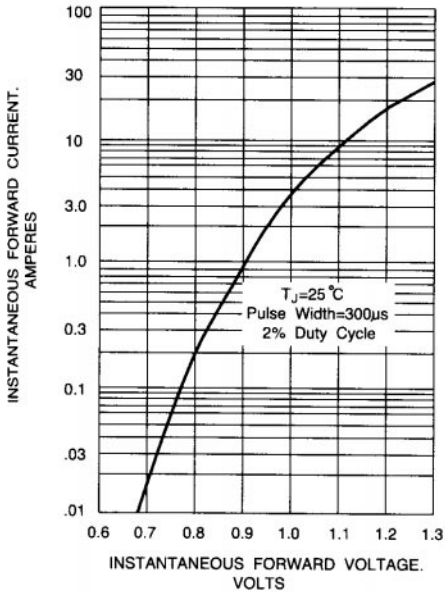


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

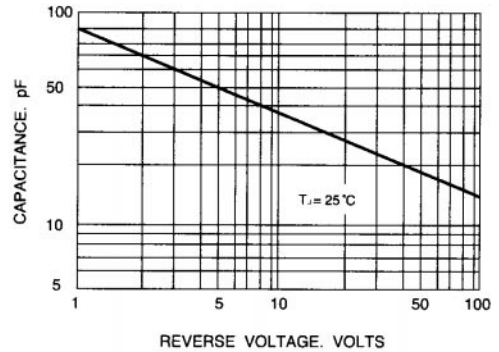


FIG. 4 - TYPICAL JUNCTION CHARACTERISTICS

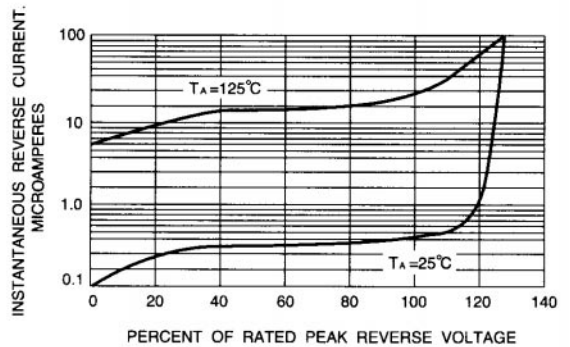


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS