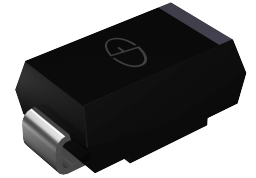


GN3AB thru GN3MB

Surface Mount Glass Passivated Standard Rectifier
 Reverse Voltage 50-1000V Forward Current 3A

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
- For use of general purpose rectification



DO-214AA(SMB)

Mechanical Data

- Case: JEDEC DO-214AA(SMB) 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

Absolute Maximum Ratings and Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	GN3AB	GN3BB	GN3DB	GN3GB	GN3JB	GN3KB	GN3MB	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 Rectified Current at TL(See Fig.1)		I _{F(AV)}	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load		I _{FSM}	100							A
Rating for Fusing (t < 8.3ms, single half sine-wave)		I ² t	42							A ² S
Peak Forward Surge Current 1 ms Single Square Wave Superimposed on Rated Load		I _{FSM}	220							A
Rating for Fusing(t < 1ms, single square wave)		I ² t	48.4							A ² S
Maximum Instantaneous Forward Voltage	3.0A	V _F	1.15							Volts
Maximum DC reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	10.0							μA
	T _A =125°C		250							
Maximum Reverse Recovery Time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	3.0							uS
Typical Thermal Resistance ¹	Junction to Ambient	R _{θJA}	85							°C/W
	Junction to Case	R _{θJC}	15							
	Junction to Lead	R _{θJL}	20							
Typical Junction Capacitance	4.0V, 1MHz	C _J	22							pF
Operating Junction and Storage Temperature		T _J , T _{STG}	-55 to + 150							°C

Note:

1.The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 8.0×8.0mm copper pads

Typical Electrical Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

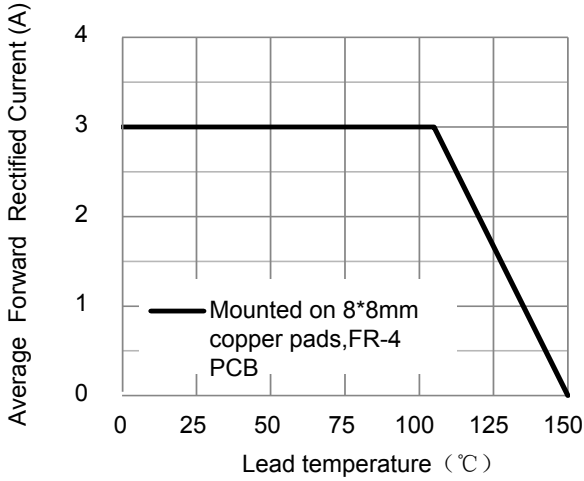


Figure 1. Forward Current Derating Curve

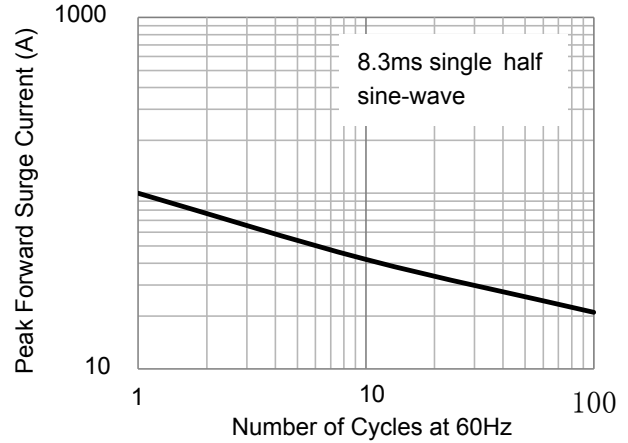


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

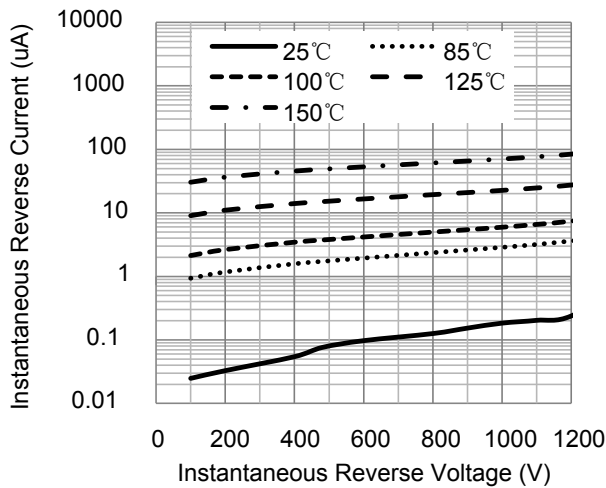


Figure 3. Typical Reverse Characteristics

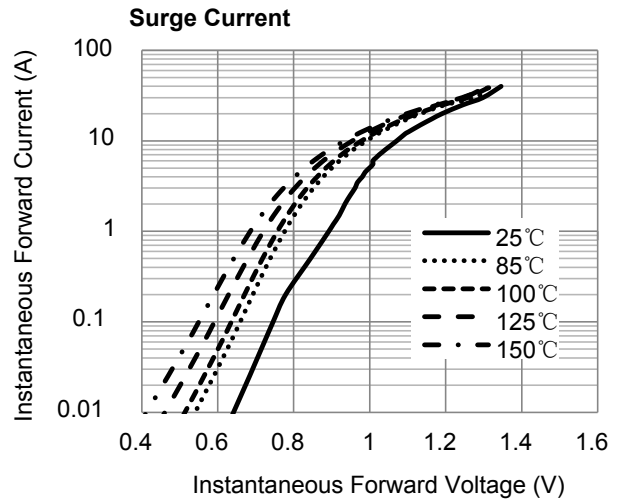


Figure 4. Typical Instantaneous Forward Characteristic

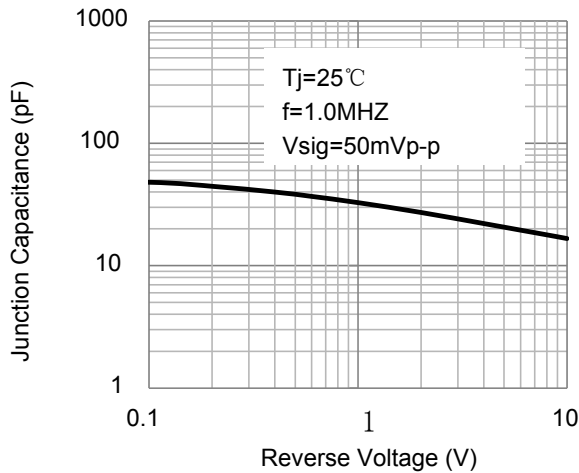


Figure 5. Typical Junction Capacitance

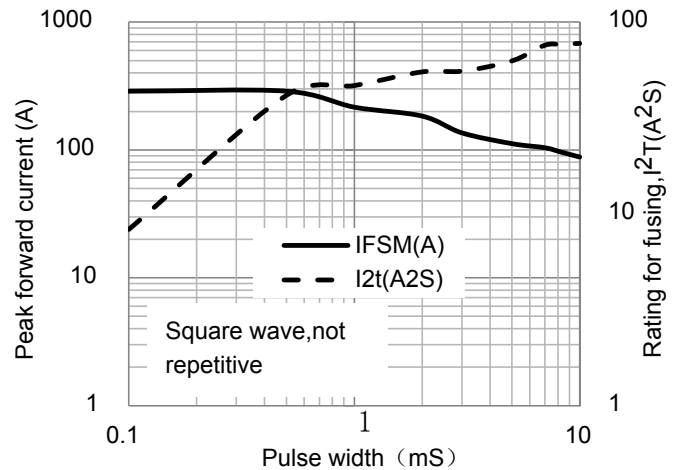
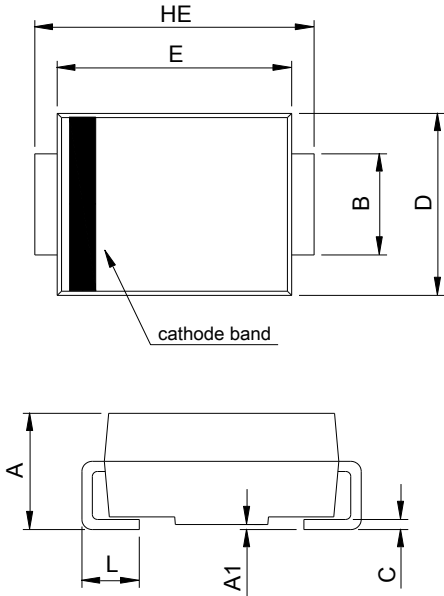


Figure 6. I_{FSM} or I^2T and pulse width

GN3AB thru GN3MB

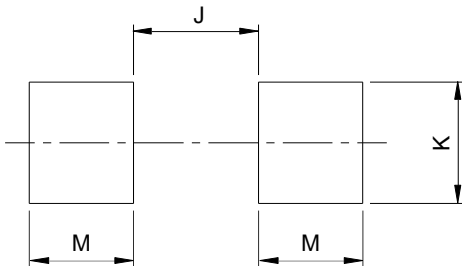
Surface Mount Glass Passivated Standard Rectifier
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Package Outline Dimensions (SMB)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.95	2.65	0.077	0.104
A1	0.00	0.20	0.000	0.008
B	1.95	2.20	0.077	0.087
C	0.15	0.31	0.006	0.012
D	3.30	3.95	0.130	0.156
E	4.06	4.60	0.160	0.181
HE	5.10	5.60	0.201	0.220
L	0.76	1.60	0.030	0.063

Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-