

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)



RoHS
COMPLIANT

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
- Weight: 0.003 ounce, 0.093gram

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							µS
Typical Thermal Resistance ¹⁾	Junction to Ambient	R _{θJA}	47							°C/W
	Junction to Lead	R _{θJL}	13							
Typical Junction Capacitance	4.0 V, 1 MHz	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)

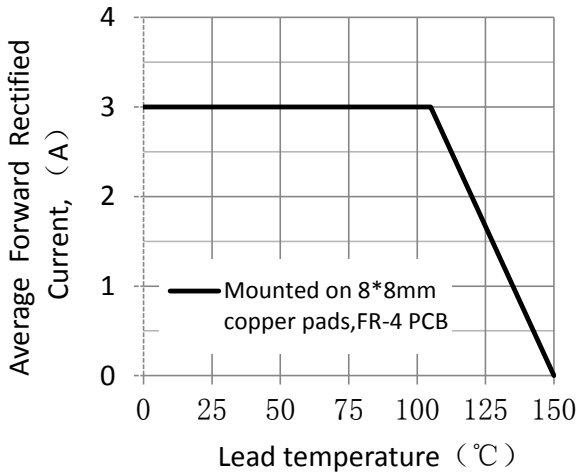


Figure 1. Forward Current Derating Curve

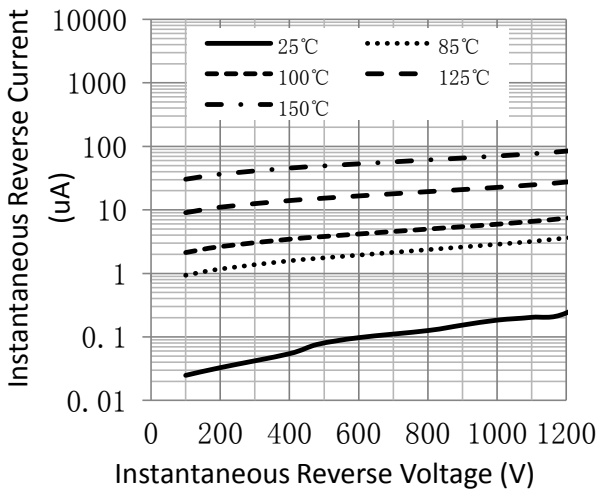


Figure 3. Typical Reverse Characteristics

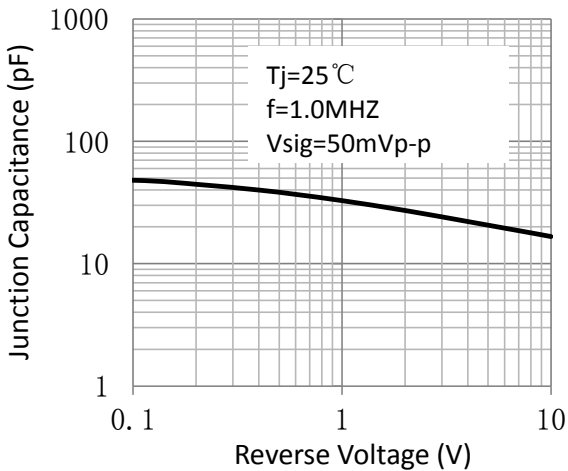


Figure 5. Typical Junction Capacitance

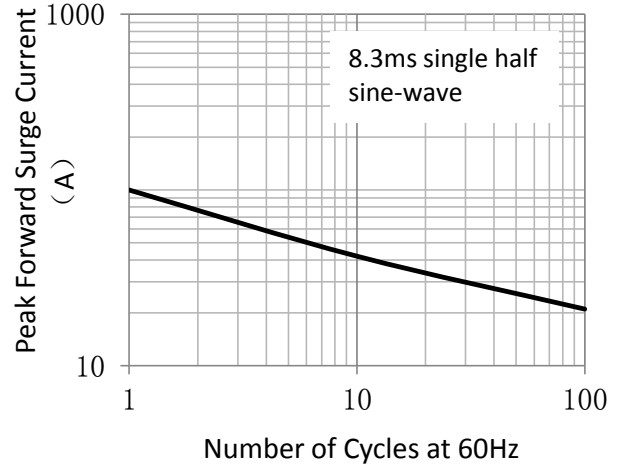


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

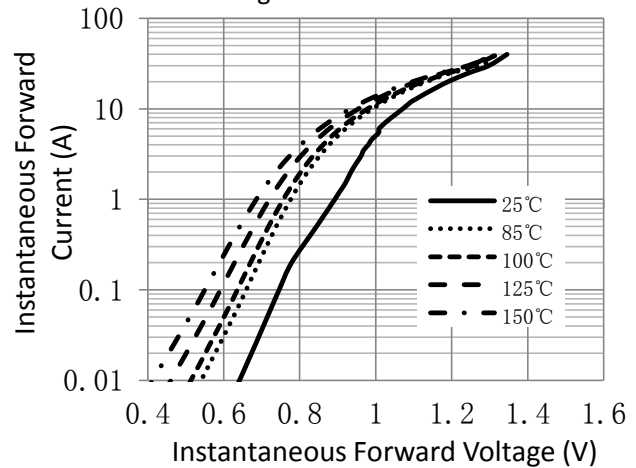


Figure 4. Typical Instantaneous Forward Characteristics

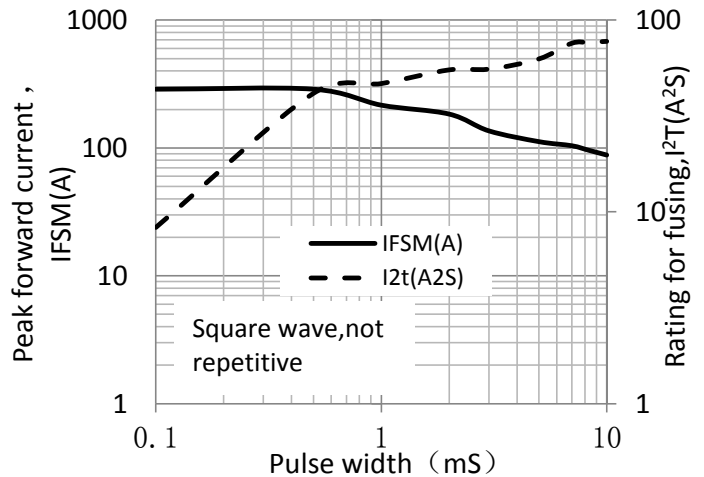


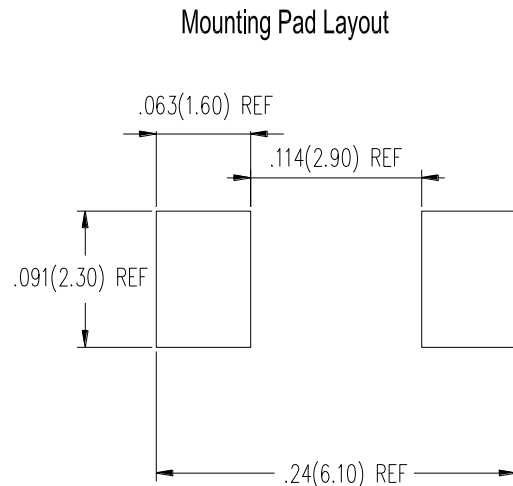
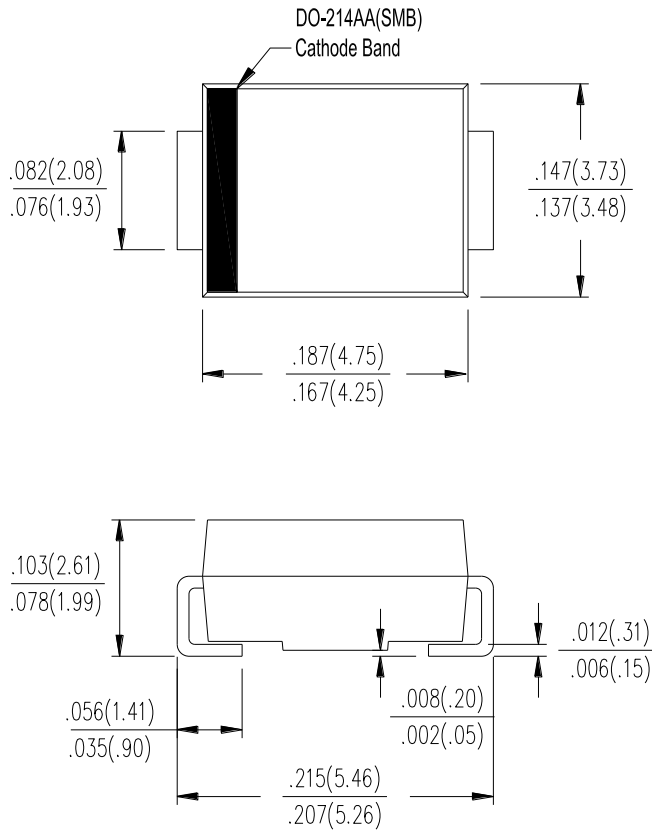
Figure 6. IFSM or I2T and pulse width

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Package Outline Dimensions

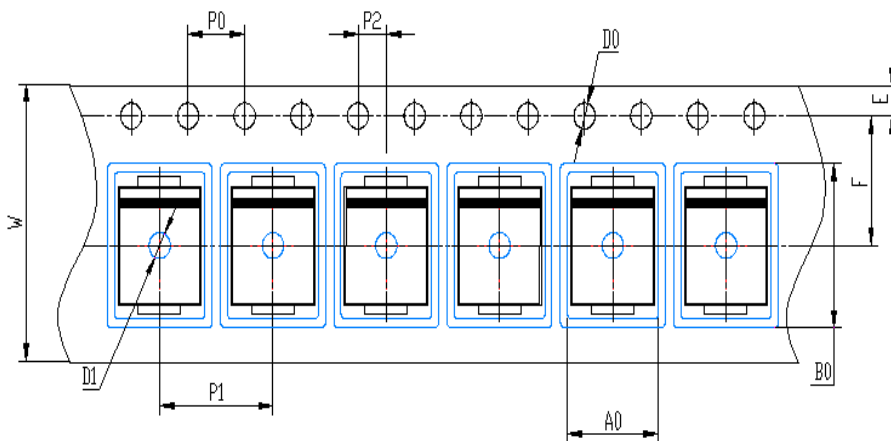
in inches (millimeters)



Packing Quantities:

3000 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel

Tape & Reel Specification



Symbols	SMB (mm)
W	12 ± 0.2
E	1.75 ± 0.1
F	5.5 ± 0.05
D0	1.5 ± 0.1
D1	$1.50 +0.1/-0$
P0	4.0 ± 0.1
P1	8.0 ± 0.1
P2	2.0 ± 0.05
A0	3.95 ± 0.1
B0	5.74 ± 0.1