GOOD-ARK
SEMICONDUCTOR

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
- Buili-in strain relief,ideal for automated placement
- Glass passivated chip junction
- For use of general purpose rectification

DO-214AA(SMB)

Pb
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^2t	42							A^2S
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^2t	48.4							A^2S
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							
Maxinmum Reverse Recovery Time	I_F=0.5A,IR=1.0A,Irr=0.25A	t_{rr}	3.0							uS
Typical Thermal Resistance[1]	Juntion to Ambient	$R_{\theta JA}$	47							°C/W
	Juntion to Lead	$R_{\theta JL}$	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°C unless otherwise noted)

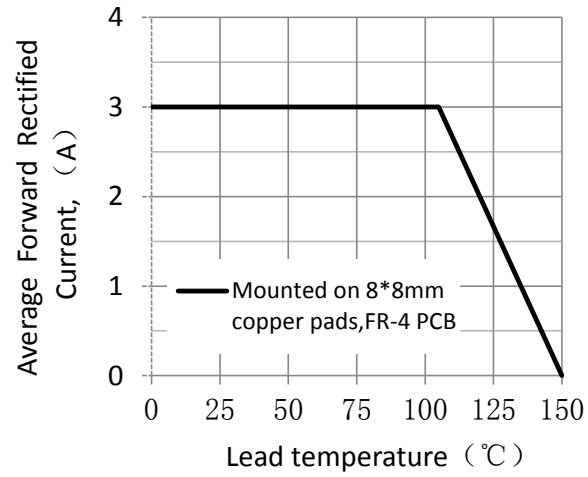

Figure 1.Forward Current Derating Curve

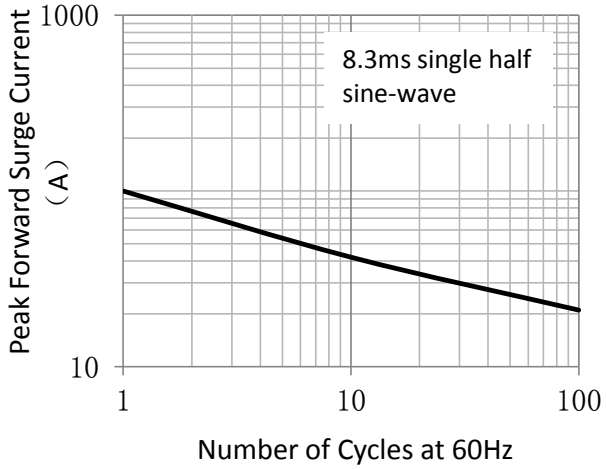

Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

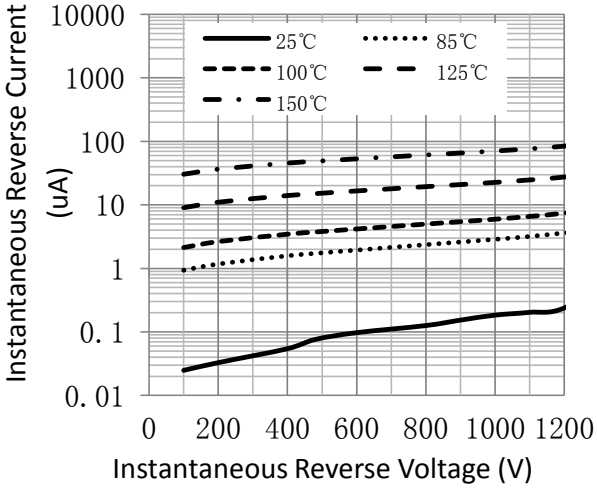

Figure 3. Typical Reverse Characteristics

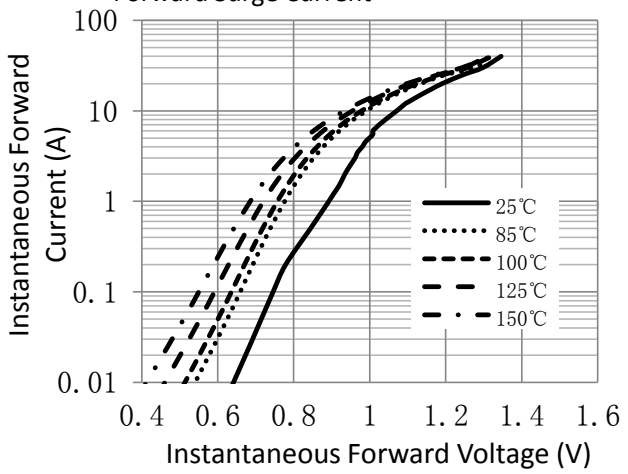

Figure 4. Typical Instantaneous Forward Characteristics

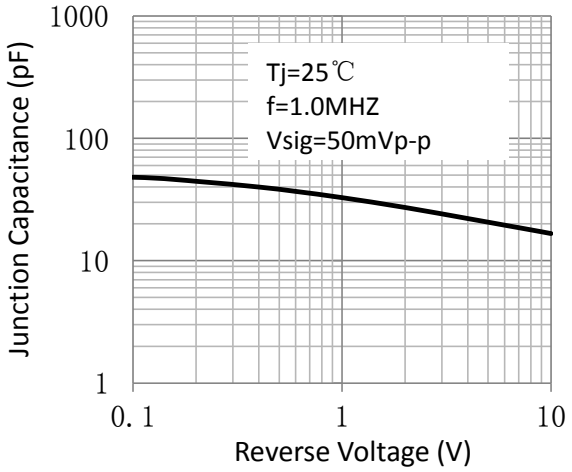

Figure 5. Typical Junction Capacitance

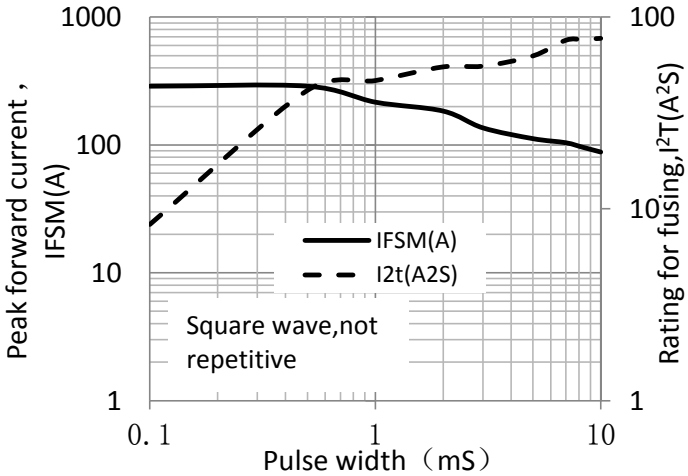

Figure 6. IFSM or I2T and pulse width

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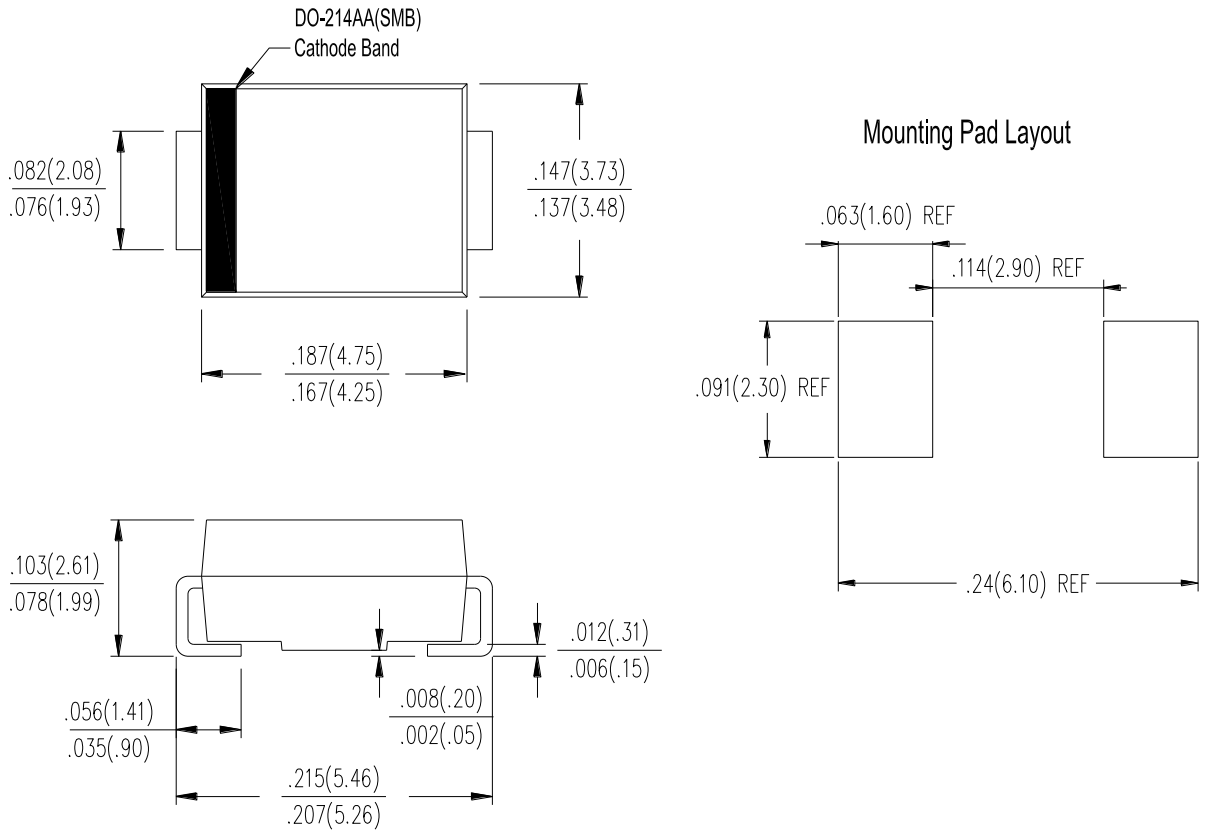
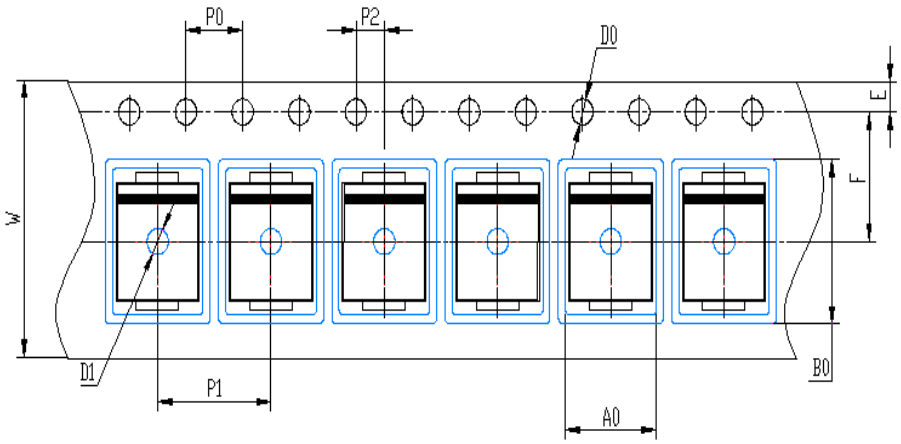
Package Outline Dimensions

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