

## Features

- Glass passivated chip junction
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Add suffix "E" for Halogen Free
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



RoHS  
COMPLIANT



DO-214AB(SMC)

## Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	GN3A	GN3B	GN3D	GN3G	GN3J	GN3K	GN3M	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 output rectified current	$I_{F(AV)}$	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( $t < 8.3ms$ )	$I^2t$	41.7							A <sup>2</sup> sec
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	GN3A	GN3B	GN3D	GN3G	GN3J	GN3K	GN3M	Unit
Maximum instantaneous forward voltage	$I_F=3.0A$ $T_A=25^\circ C$	$V_F$					1.15			Volts
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ C$	$I_R$					10.0			$\mu A$
	$T_A=125^\circ C$						250			
Typical reverse recovery time	$I_F=0.5A, I_R=1.0A,$ $I_{RR}=0.25A$	$t_{rr}$					1.8			$\mu s$
Typical junction capacitance	4.0 V, 1 MHz	$C_J$					60			pF

## Thermal Characteristics

Parameter	Symbol	GN3A	GN3B	GN3D	GN3G	GN3J	GN3K	GN3M	Unit	
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$					47				°C/W
	$R_{\theta JI}$					13				

Notes:1. The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 8x8mm copper pads, 2 OZ, FR4 PCB

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

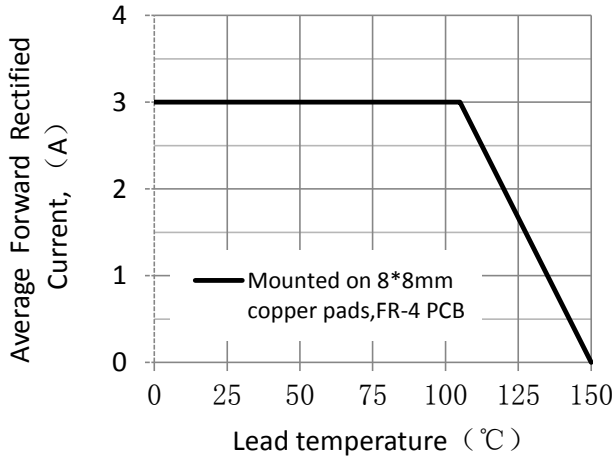


Figure 1. Forward Current Derating Curve

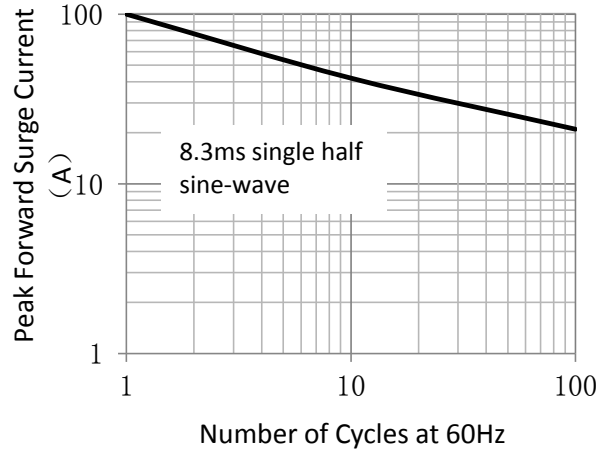


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

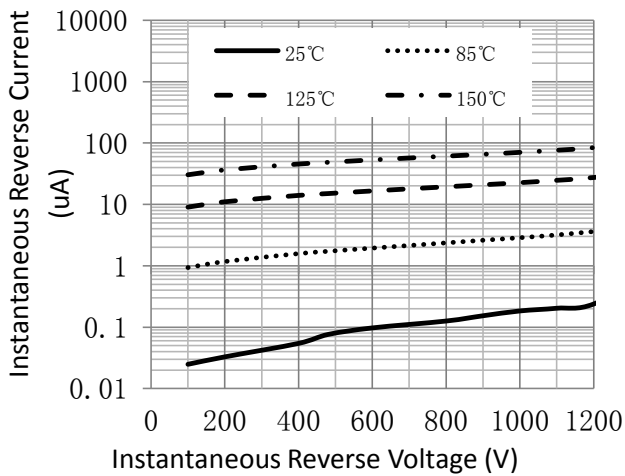


Figure 3. Typical Reverse Characteristics

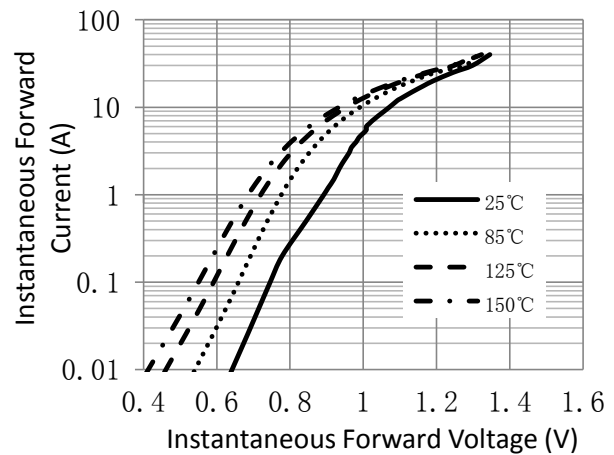


Figure 4. Typical Instantaneous Forward Characteristics

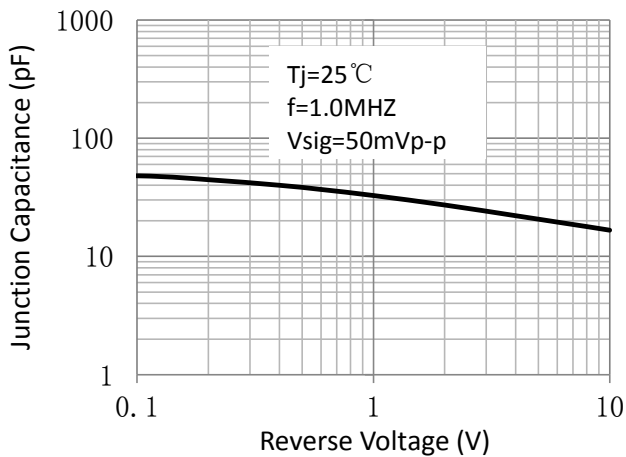
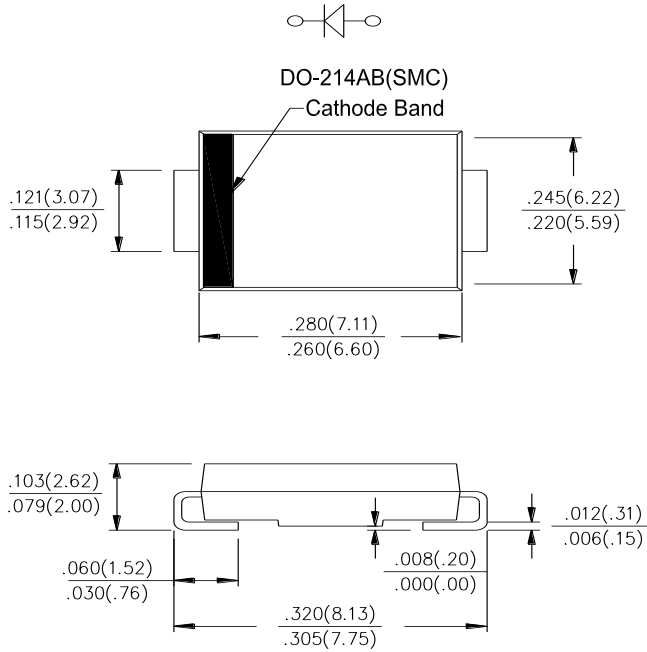


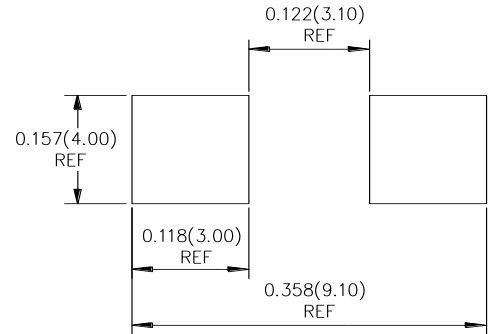
Figure 5. Typical Junction Capacitance

## Package Outline Dimensions

in inches (millimeters)



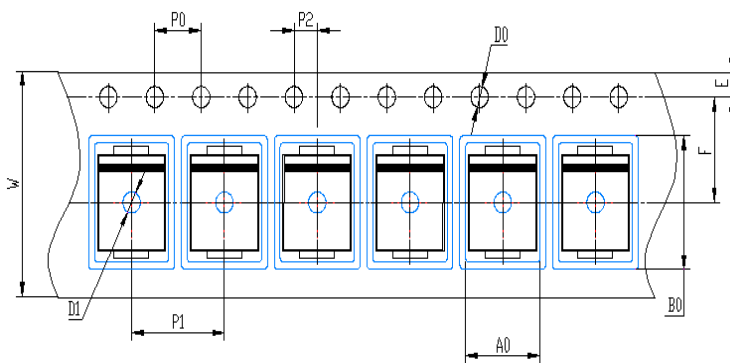
Mounting Pad Layout



## Packing Information

3000 pcs/Reel, 14 Reels/Box; 16mm Tape, 13" Reel

## Tape & Reel Specification



Symbols	SMC(mm)
W	16±0.2
E	1.75±0.1
F	7.5±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	6.22±0.1
B0	8.31±0.1



# **GN3A thru GN3M**

Surface Mount Glass Passivated Standard Rectifiers  
Reverse Voltage 50 to 1000V Forward Current 3A

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