

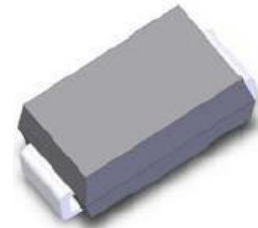


GN1A thru GN1M

Surface Mount Glass Passivated Standard Rectifiers
Reverse Voltage 50 to 1000V Forward Current 1A

Features

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



DO-214AC(SMA)

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	GN1A	GN1B	GN1D	GN1G	GN1J	GN1K	GN1M	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	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40							A
Rating for fusing(t<8.3ms)	I^2t	6.7							A ² 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	GN1A	GN1B	GN1D	GN1G	GN1J	GN1K	GN1M	Unit
Maximum instantaneous forward voltage	$I_F=1.0A$ $T_A=25^\circ C$	V_F	0.99							Volts
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ C$	I_R	5.0							μA
	$T_A=125^\circ C$		50							
Typical reverse recovery time	$I_F=0.5A, I_R=1.0A,$ $I_{RR}=0.25A$	t_{rr}	1.8							μs
Typical junction capacitance	4.0 V, 1 MHz	C_J	6							pF

Thermal Characteristics									
Parameter	Symbol	GN1A	GN1B	GN1D	GN1G	GN1J	GN1K	GN1M	Unit
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	68							°C /W
	$R_{\theta JL}$	10							

Notes:1. The thermal resistance from junction to ambient and lead, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB



GN1A thru GN1M

Surface Mount Glass Passivated Standard Rectifiers
Reverse Voltage 50 to 1000V Forward Current 1A

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

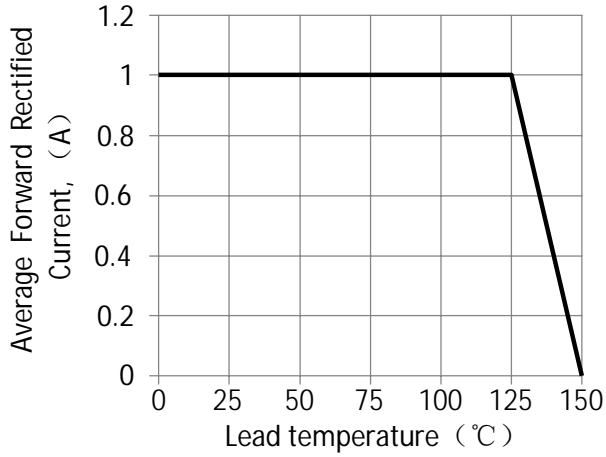


Figure 1. Forward Current Derating Curve

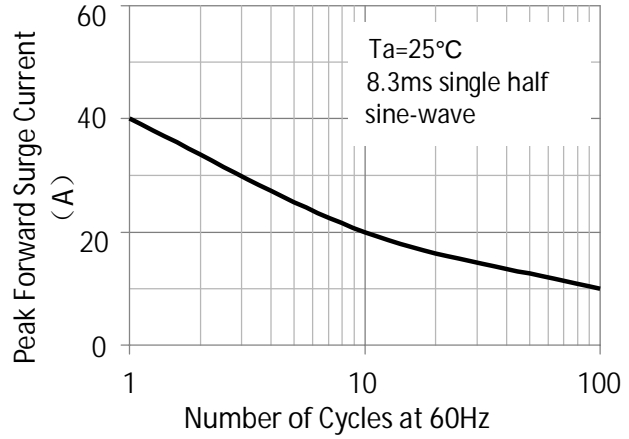


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

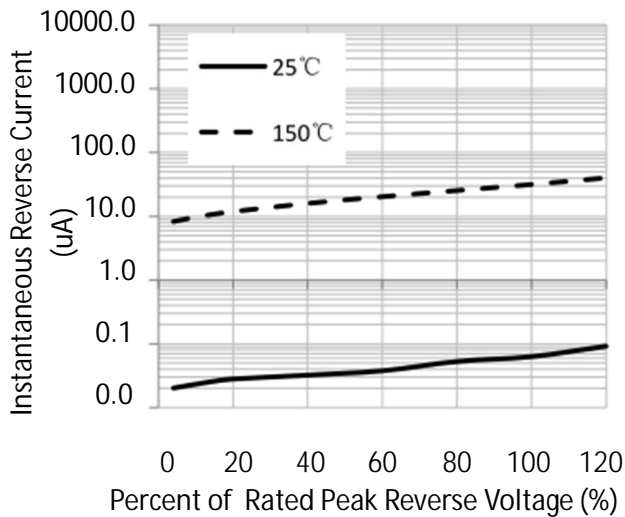


Figure 3. Typical Reverse Characteristics

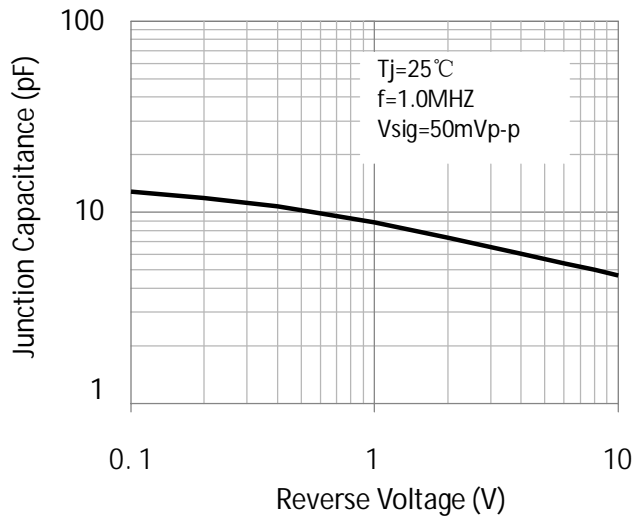


Figure 4. Typical Junction Capacitance

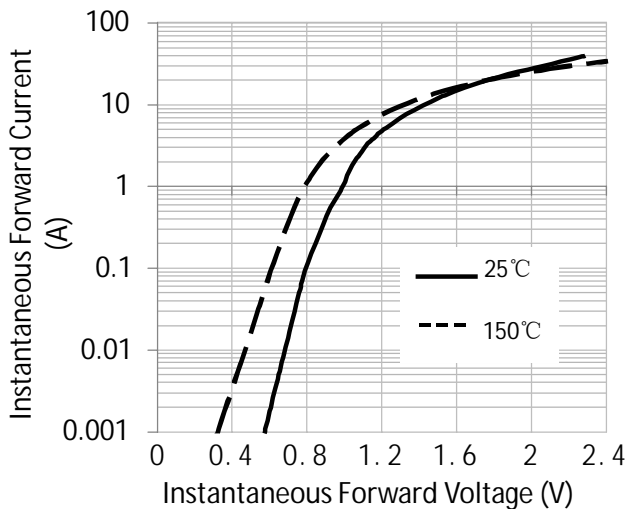
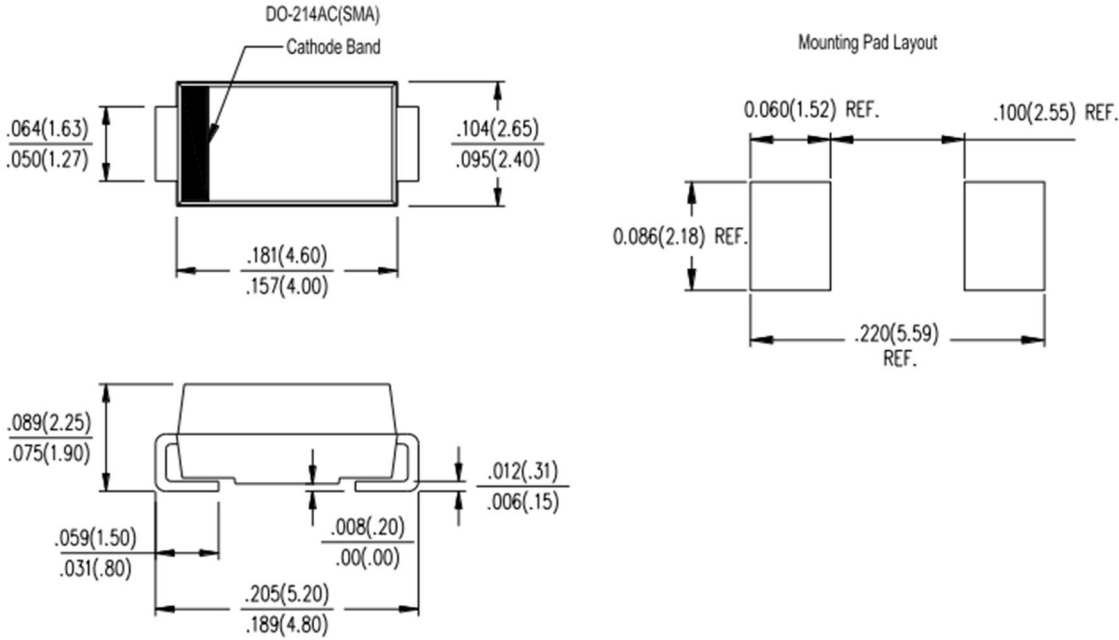


Figure 5. Typical Instantaneous Forward Characteristics

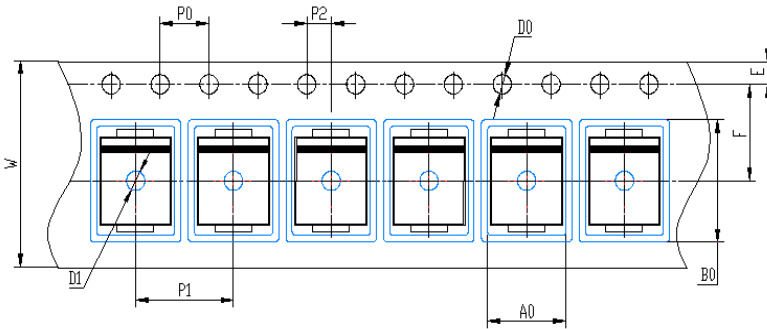
Package Outline Dimensions



Packing Information

7500 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel

Tape & Reel Specification



Symbols	SMA(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	4.0 ± 0.1
P2	2.0 ± 0.05
A0	2.65 ± 0.1
B0	5.25 ± 0.1



GN1A thru GN1M

Surface Mount Glass Passivated Standard Rectifiers
Reverse Voltage 50 to 1000V Forward Current 1A

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page. (<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.