

Glass Passivated Rectifier 1A 50~1KV SMA AEC-Q101

GS1x-A Series

MERITEK

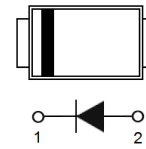
FEATURES

- Peak Surge Overload Rating: 30A
- Glass Passivated Junction
- Low Profile Package
- Low Forward Voltage Drop
- Built-In Strain Relief
- AEC-Q101 Qualified



MECHANICAL DATA

- Case: DO-214AC(SMA), Molded Plastic
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- UL Flammability Classification 94V-0
- Polarity: Color Band Denotes Cathode End



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

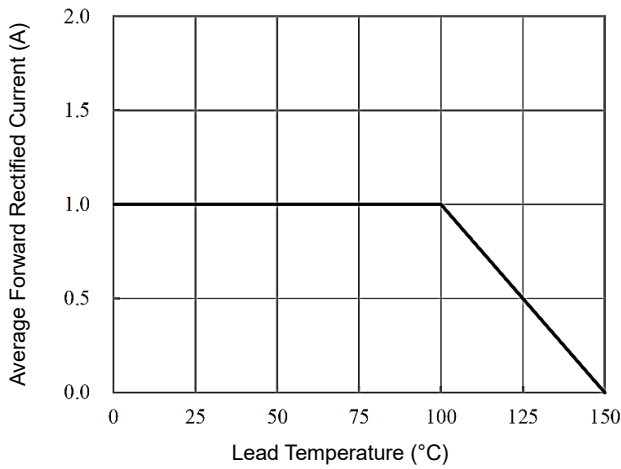
Parameter	Symbol	GS1A -A	GS1B -A	GS1D -A	GS1G -A	GS1J -A	GS1K -A	GS1M -A	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_L=110^{\circ}C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Forward Voltage at 1.0A	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_J=25^{\circ}C$	I_R							μA
	$T_J=125^{\circ}C$								
Typical Thermal Resistance- Junction to Lead	$R_{\theta JL}$	75							$^{\circ}C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

Note :

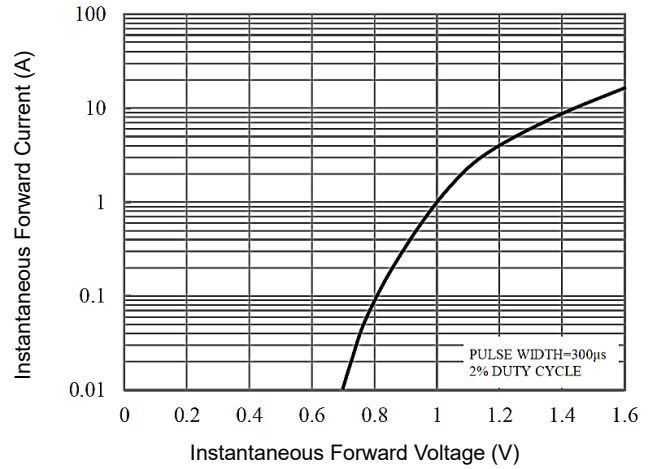
1. Ratings at 25°C ambient temperature unless otherwise specified.
2. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.
3. Thermal resistance from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 x 5.0 mm) copper pad areas.

CHARACTERISTIC CURVES

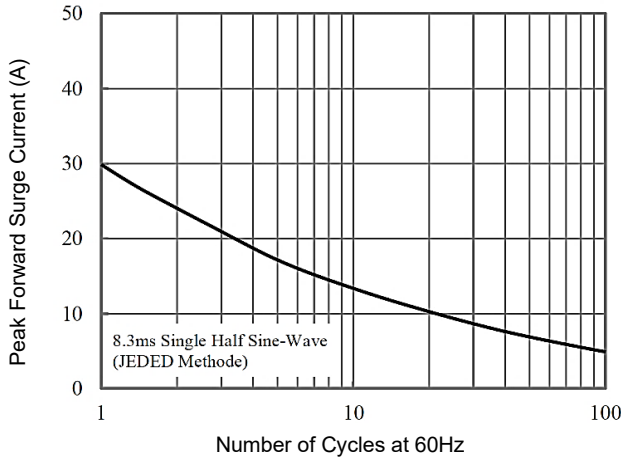
Typical Forward Current Derating Curve



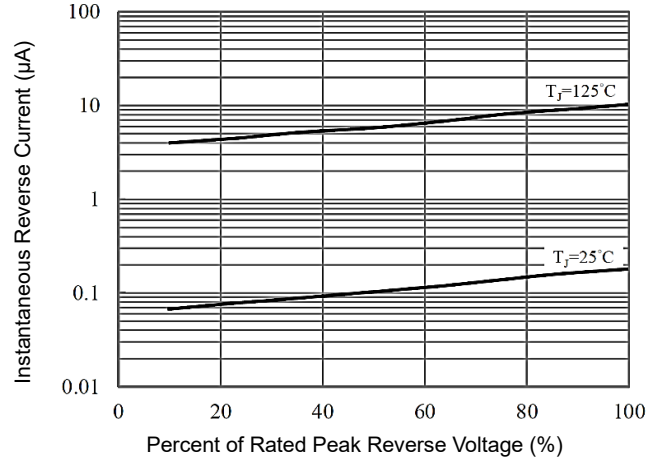
Typical Instantaneous Forward Characteristics



Maximum Non-Repetitive Forward Surge Current

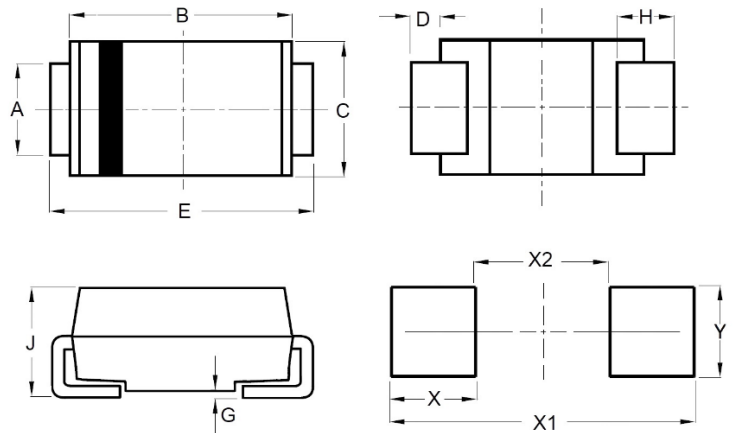


Typical Reverse Characteristics



DIMENSIONS

DO-214AC	Min. (mm)	Max. (mm)
A	1.230	1.700
B	4.000	4.700
C	2.180	2.900
D	0.152	0.305
E	4.700	5.310
G	0.000	0.203
H	0.760	1.520
J	1.700	2.500
X		2.500
X1		6.500
Y		1.500
Y1		1.700



*Specifications subject to change without notice