

Silicon Rectifier

1A 50~1KV DO-214AC (SMA)

GS1A-GS1M

MERITEK

FEATURES

- Peak Surge Overload Rating: 30A
- Low profile package
- Low forward voltage drop
- Glass passivated Die construction
- Terminals: Solder plated, solderable per MIL-STD-750
- UL Flammability Classification 94V-O



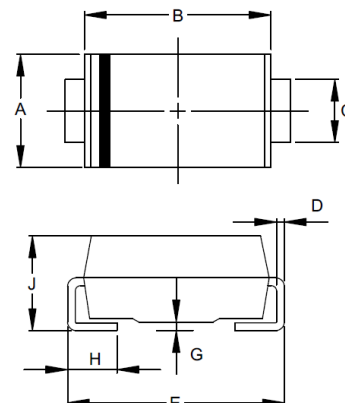
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	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 $T_L=100^{\circ}C$	$I_{(AV)}$	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	$T_A=25^{\circ}C$	5.0							μA
	$T_A=125^{\circ}C$	100							
Typical Junction Capacitance	C_J	12							pF
Typical Thermal Resistance- Junction to Ambient	$R_{\theta JA}$	50							$^{\circ}C/W$
Maximum Reverse Recovery Time	T_{RR}	2.5							μs
Operating Junction Temperature Range	T_J	-65 to +150							$^{\circ}C$
Storage Temperature Range	T_{STG}	-65 to +175							$^{\circ}C$

- 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. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
 4. Thermal resistance from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas
 5. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.

DIMENSIONS

Item	DO-214AC (SMA)	
	Min. (mm)	Max. (mm)
A	2.180	2.900
B	4.000	4.600
C	1.230	1.700
D	0.152	0.305
E	4.700	5.310
G	0.000	0.203
H	0.760	1.520
J	1.700	2.440



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CHARACTERISTIC CURVES

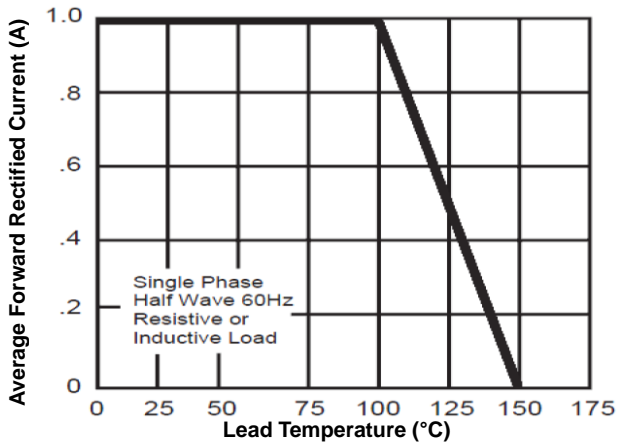


Fig1. Typical Forward Current Derating Curve

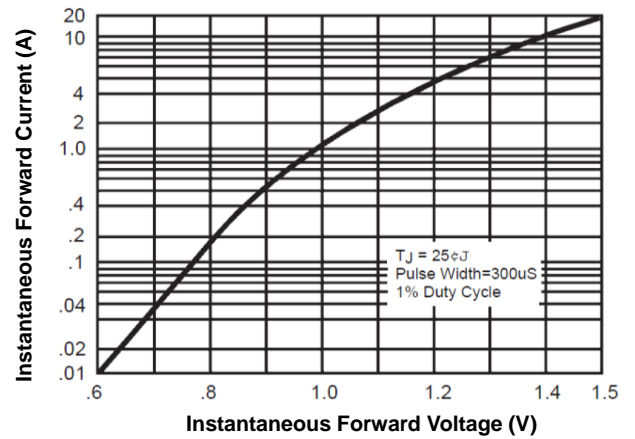


Fig2. Typical Instantaneous Forward Characteristics

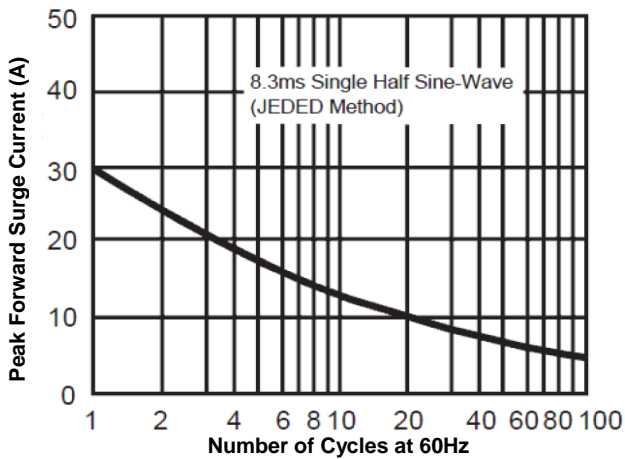


Fig3. Maximum Non-Repetitive Forward Surge Current

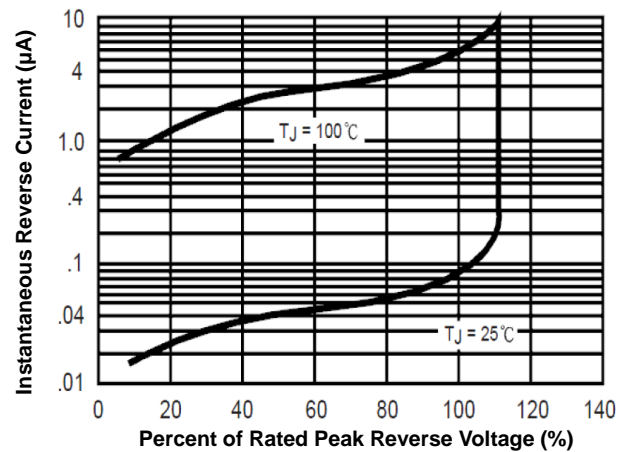


Fig4. Typical Reverse Characteristics

*Specifications subject to change without notice