



# GS1A THRU GS1M

## 1.0 AMP. SURFACE MOUNT RECTIFIERS



### FEATURES

- \* For surface mounted application
- \* Low forward voltage drop
- \* High current capability
- \* Easy pick and place
- \* High surge current capability
- \* Plastic material used carries Underwriters Laboratory classification 94V-0

### MECHANICAL DATA

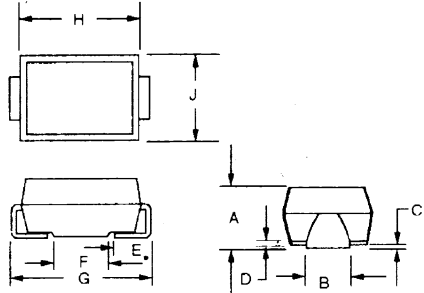
- \* Case: Molded plastic
- \* Terminals: Solder plated
- \* Polarity: Indicated by cathode band
- \* Packaging: 12mm tape per EIA STD RS-481
- \* Weight: 0.091 gram

### VOLTAGE RANGE

50 to 1000 Volts

CURRENT  
1.0 Ampere

### SMA/DO-214AC\*



### DIMENSIONS

	inches		mm	
	Min	Max	Min	Max
A	0.078(L)	0.116(L)	1.98(L)	2.95(L)
A	0.110(H)	0.117(H)	2.80(H)	2.98(H)
B	0.067	0.088	1.7	2.24
C		0.008		0.20
D		0.02		0.51
E	0.030	0.060	0.76	1.52
F	0.065	0.094	1.65	2.39
G	0.204	0.220	5.21	5.59
H	0.160	0.180	4.06	4.57
I	0.101	0.112	2.56	2.85

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	UNITS
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 @ $T_L = 75^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms half sine	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.1							V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C. Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
		50							$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	1.8							$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_J$	8							pF
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$

2. Measured at 1 MHz and applied  $V_R = 4.0$  volts D. C.

## RATINGS AND CHARACTERISTIC CURVES (GS1A THRU GS1M)

FIG. 1 - FORWARD CURRENT DERATING CURVE

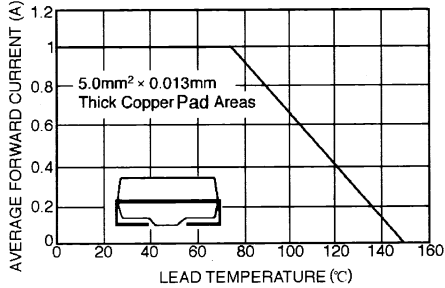


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

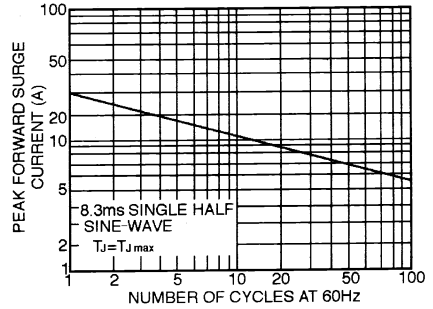


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

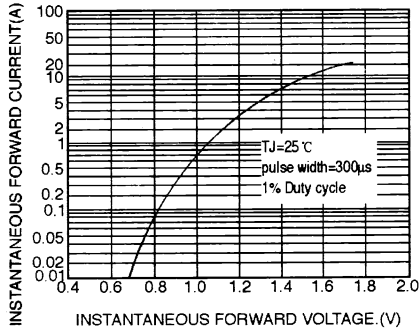


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

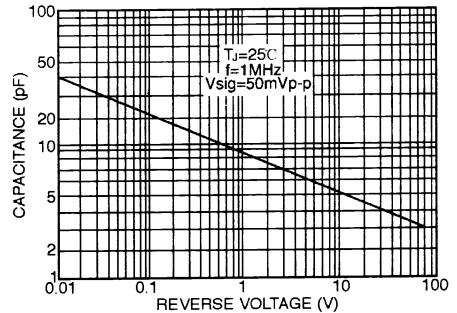


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

