

### SMAE



**RoHS**  
COMPLIANCE



### Features

- ◇ For surface mounted application
- ◇ Easy pick and place
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ High surge current capability
- ◇ High temperature soldering guaranteed:  
260°C / 10 seconds at terminals
- ◇ Plastic material used carriers Underwriters  
Laboratory Classification 94V-0
- ◇ Green compound with suffix "G" on packing code &  
prefix "G" on datecode.

### Mechanical Data

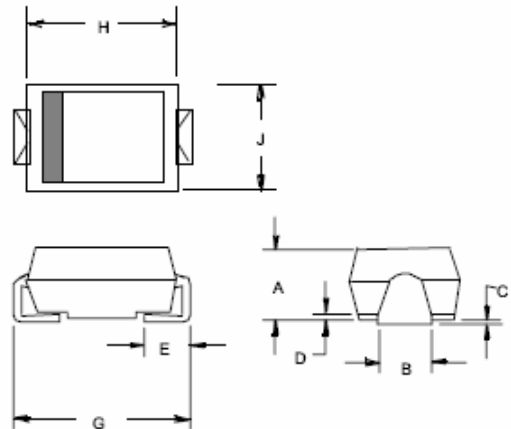
- ◇ Cases: SMAE Molded plastic
- ◇ Terminals: Lead free Finish
- ◇ Polarity: Indicated by cathode band.
- ◇ Weight: 0.073 grams

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.01	2.44	
B	.050	.075	1.27	1.90	
C	.002	.008	.05	.20	
D	--	.02	--	.51	
E	.030	.060	.76	1.52	
G	.189	.208	4.80	5.30	
H	.157	.190	4.00	4.57	
J	.090	.115	2.29	2.92	

### Marking Diagram



- GS1X = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Type Number	Symbol	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 @Ta(See Fig. 1)	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	25							A
Maximum Instantaneous Forward Voltage (Note 1) IF= 1.0A @Ta=25°C	$V_F$	1.1							V
Maximum DC Reverse Current @ Ta=25°C @ Ta=125°C	$I_R$	1.0 50.0							uA
Typical Junction Capacitance(Note 3)	$C_j$	15							pF
Typical Thermal Resistance (Note 2)	$R\theta_{JA}$ $R\theta_{JL}$	80 28							°C/W
Operating Temperature Range	$T_J$	-55 to +150							°C
Storage Temperature Range	$T_{STG}$	-55 to +150							°C

Notes: 1. Pulse Test with PW=300u sec, 1% Duty Cycle.

2. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

3. Measured at f=1.0MHz, VR= 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (GS1A THOU GS1M)

FIG.1 Maximum Forward Current Derating Curve

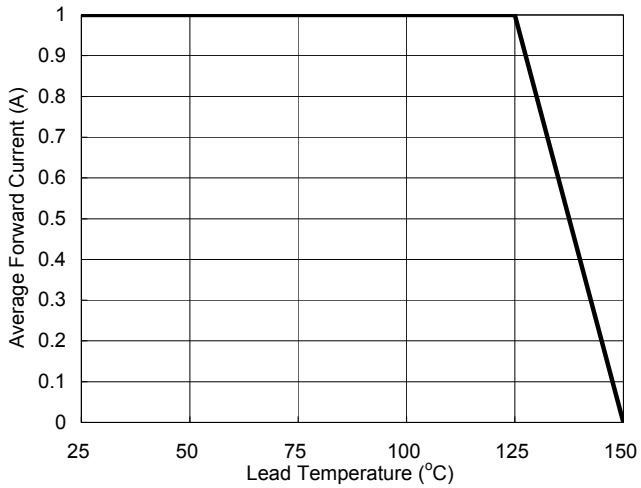


FIG 2 Maximum Forward Surge Current

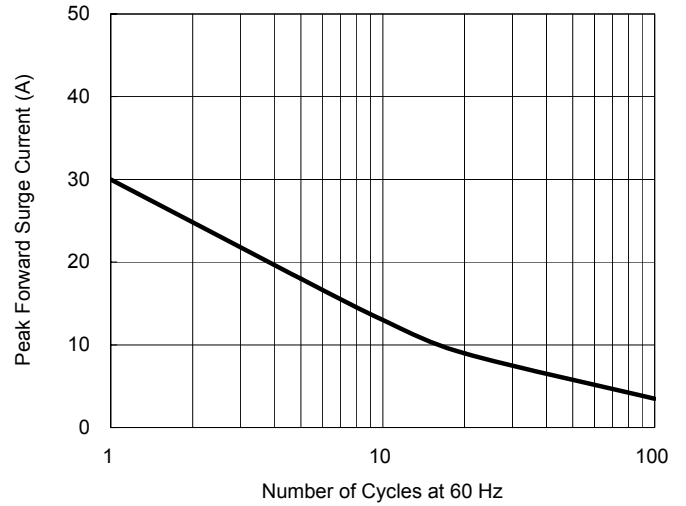


FIG 3 TYPICAL FORWARD CHARACTERISTICS

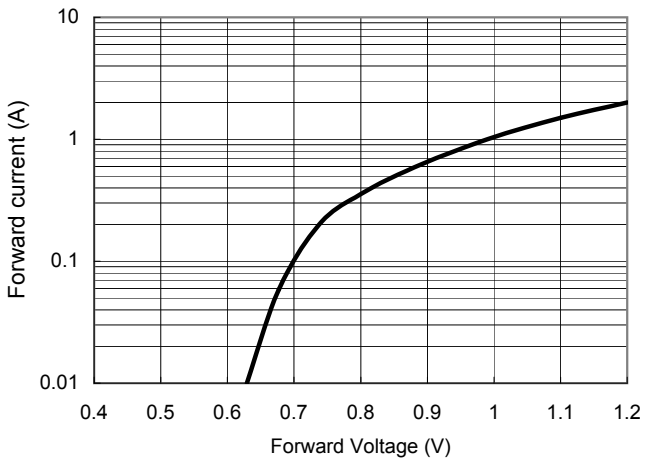


FIG 4 TYPICAL REVERSE LEAKAGE CHARACTERISTICS

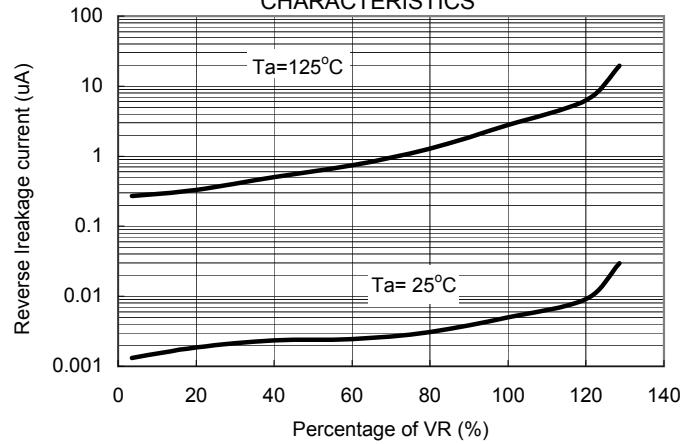


FIG 5 Typical Junction Capacitance

