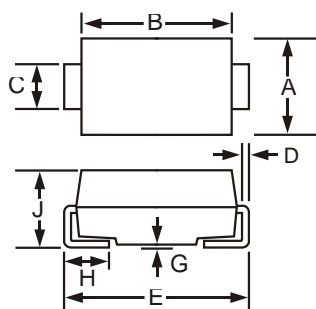


# GS1A THRU GS1M

**SURFACE MOUNT STANDARD RECOVERY RECTIFIER**  
**VOLTAGE - 50 TO 1000 VOLTS    CURRENT - 1.0 AMPERE**



SMA / DO-214AC		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.25	1.65
D	0.152	0.305
E	4.80	5.59
G	0.051	0.203
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

## FEATURES

- For surface mount applications
- Glass passivated junction
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals

## MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

Terminals: Solder plated, solderable per MIL-STD-202, method 208

Polarity: Color band denotes cathode end

Standard Package: 12mm tape (EIA STD EIA-481)

Weight: 0.002 ounce, 0.064 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%

	SYMBOL	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance (NOTE 1)	$C_J$	12							pF
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	75 30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

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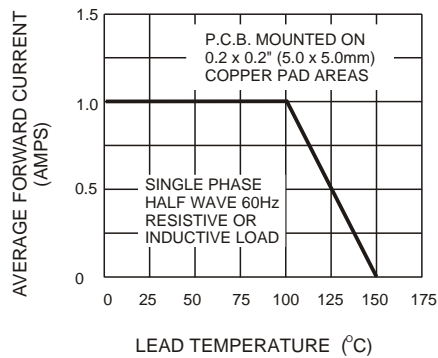


Figure 1. Typical Forward Current Derating Curve

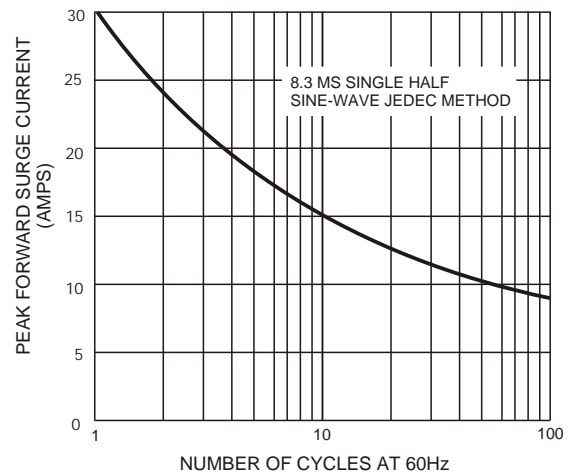


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

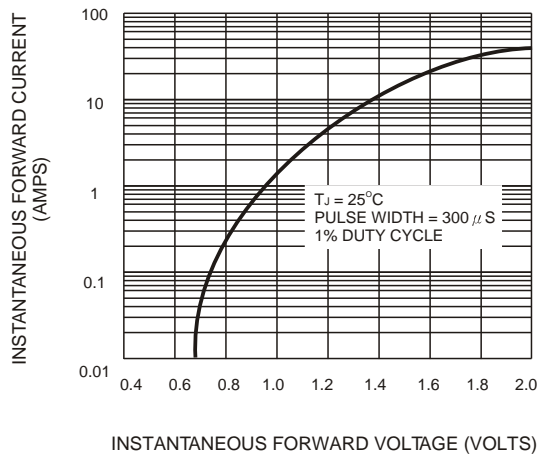


Figure 3. Typical Instantaneous Forward Characteristics

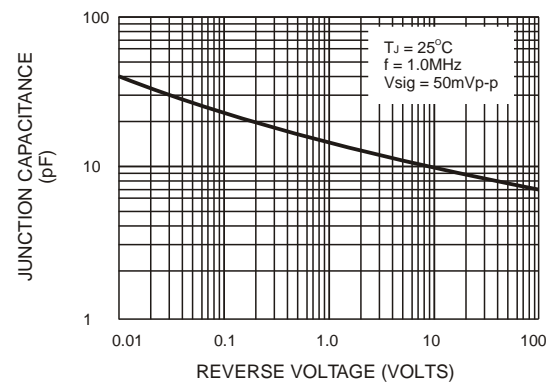


Figure 4. Typical Junction Capacitance

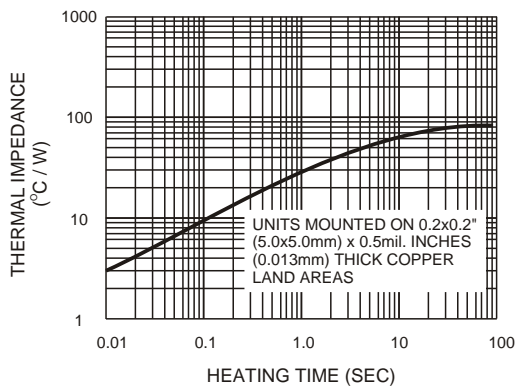


Figure 5. Transient Thermal Impedance

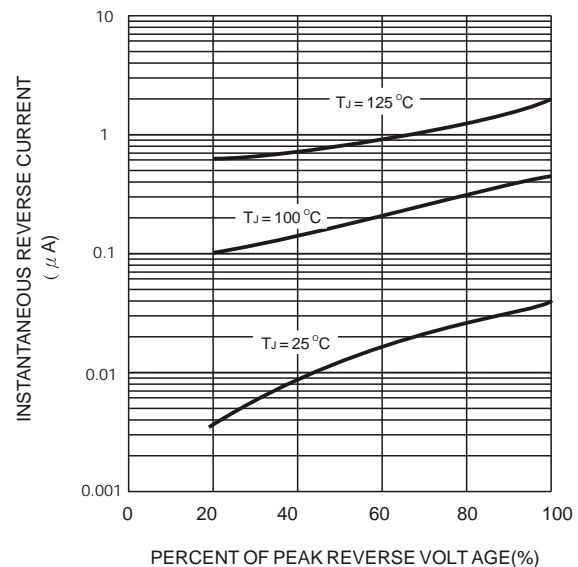


Figure 6. Typical Reverse Characteristics