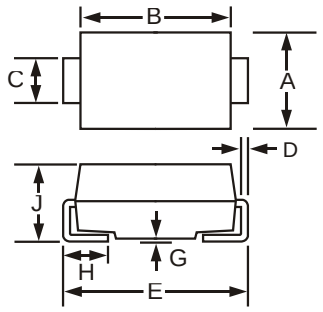
RS

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°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°C at Rated DC Blocking Voltage T_A = 125°C	I_R	5 50							μA
Typical Junction Capacitance (NOTE 1)	C_J	12							pF
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	75 30							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°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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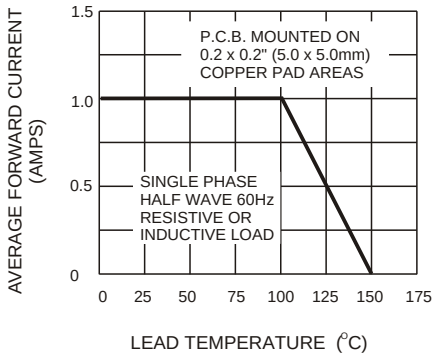

Figure 1. Typical Forward Current Derating Curve

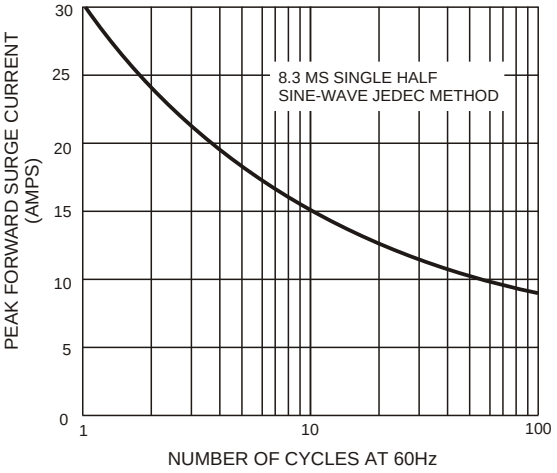

Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

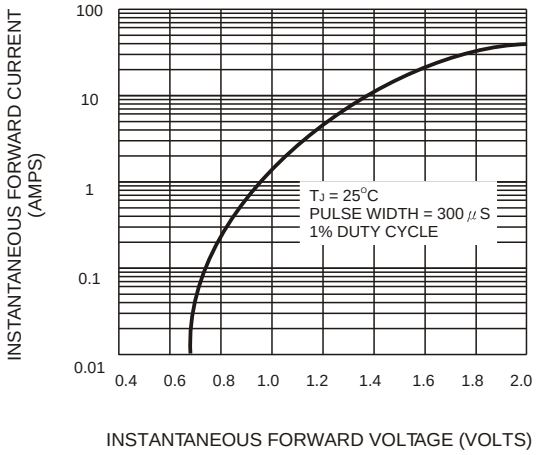

Figure 3. Typical Instantaneous Forward Characteristics

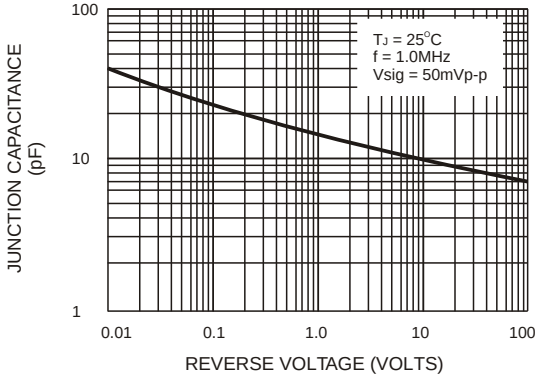

Figure 4.Typical Junction Capacitance

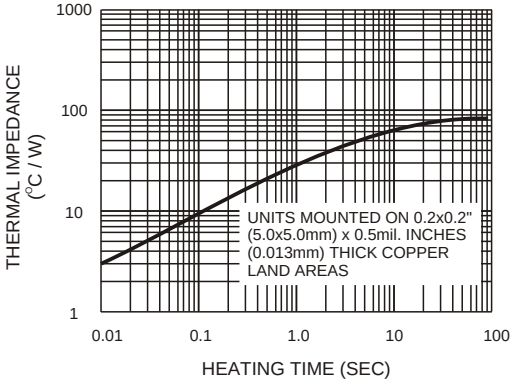

Figure 5.Transient Thermal Impedance

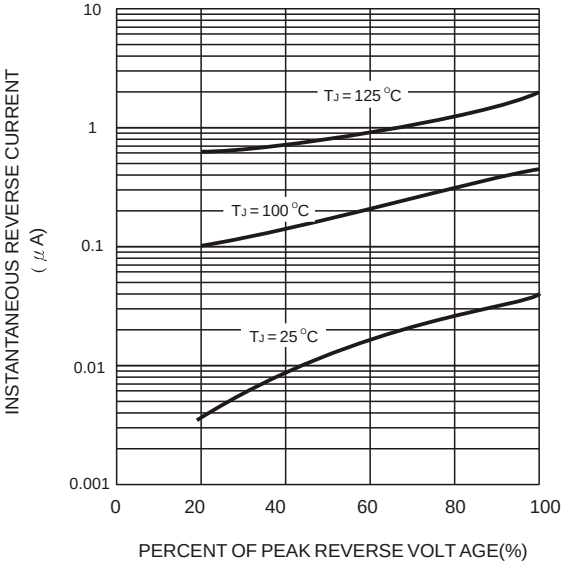

Figure 6.Typical Reverse Characteristics