



GS1AFL THRU GS1MFL

SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

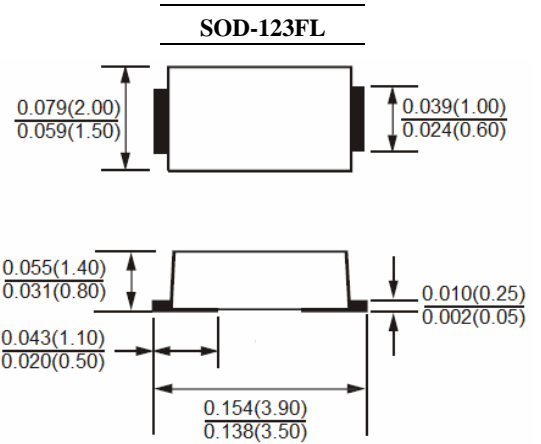
REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 1.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop
- Suffix "H" indicates Halogen-free parts, ex. GS1AFLH

MECHANICAL DATA

Case : Molded plastic, SOD-123FL
 Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed
 Polarity : Color band denotes cathode end



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Parameter	Symbols	GS1AFL	GS1BFL	GS1DFL	GS1GFL	GS1JFL	GS1KFL	GS1MFL	Units
Maximum Recerrent 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 @ $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current at 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							Amp
Maximum Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	I_R	5.0 50							uAmp
Typical Junction Capacitance (Note 1)	C_J	8							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	80							°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JT}$	65							
Non-Repetitive Peak Reverse Avalanche Engergy at 25°C, IAS=1A, L=10mH	E_{AS}	5							mJ
Operating Junction Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{stg}	-55 to +150							°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- 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



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RATINGS AND CHARACTERISTIC CURVES

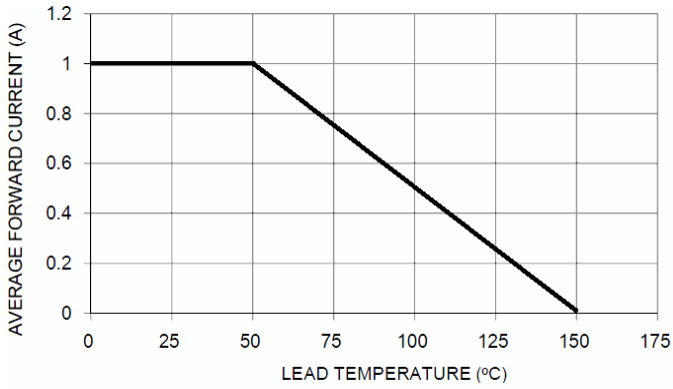


FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

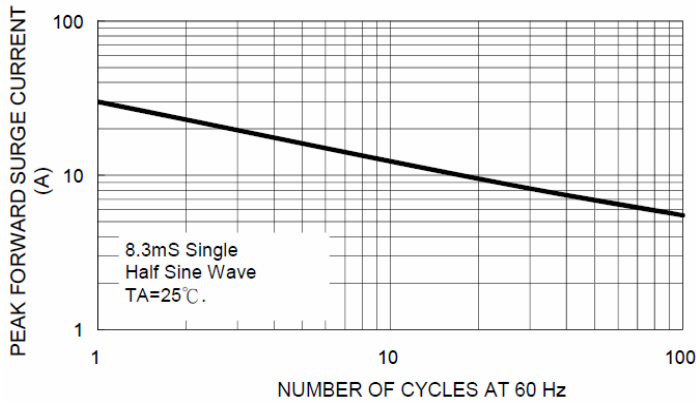


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

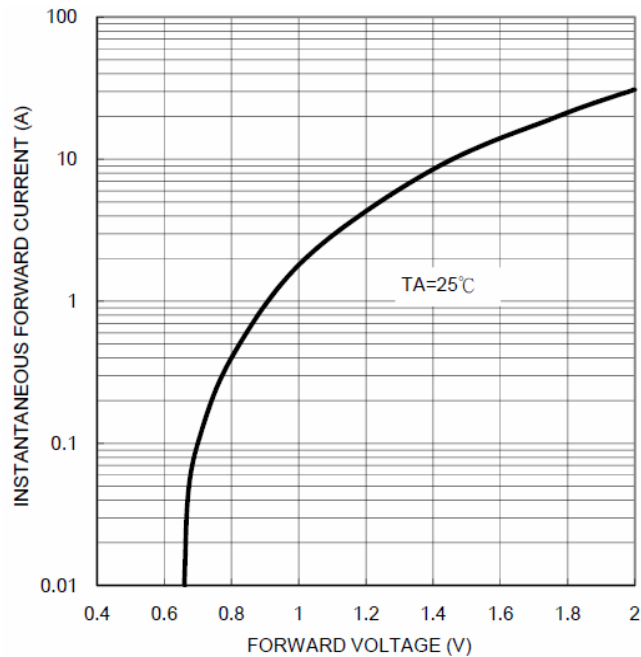


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

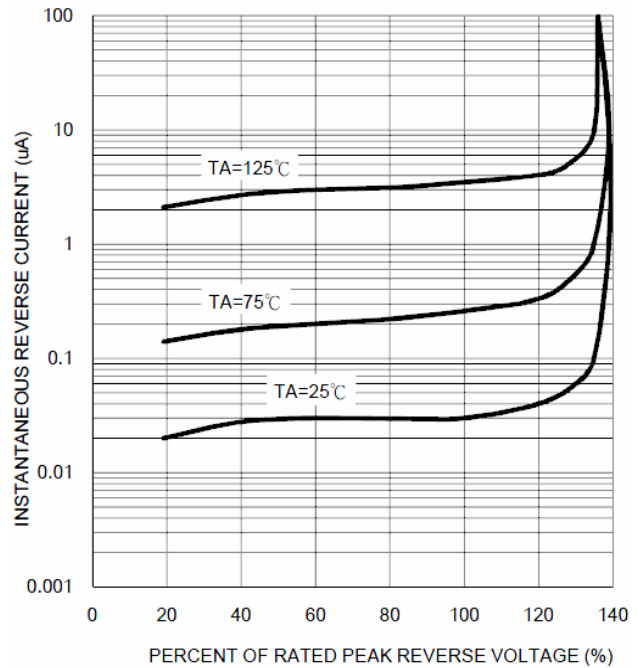


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

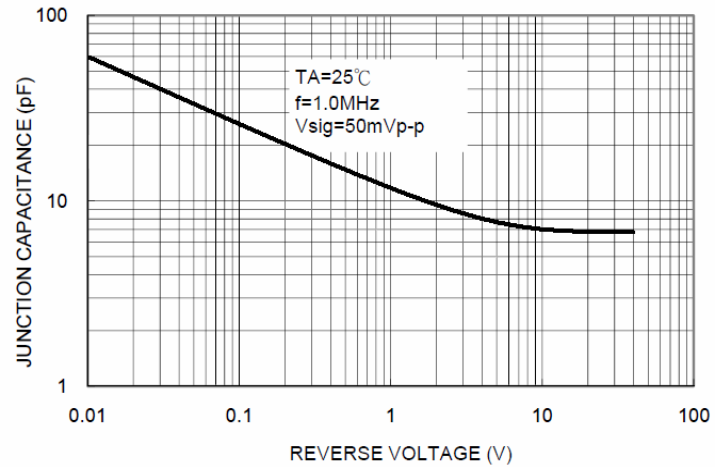


FIG. 4- TYPICAL JUNCTION CAPACITANCE