



GS1AFLH THRU GS1MFLH

SURFACE MOUNT GLASS PASSIVATED SILICON RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 1.0 AMPERE

FEATURES

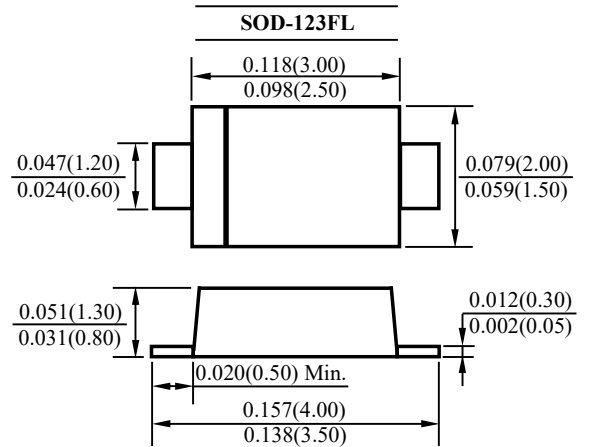
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop
- Suffix "H" indicates Halogen-free parts, ex. AGS1AFLH

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 inchs 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	GS1AFLH	GS1BFLH	GS1DFLH	GS1GFLH	GS1JFLH	GS1KFLH	GS1MFLH	Units
Maximum Recurrent 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 $T_J=100^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current at 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25							Amp
Maximum Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum Reverse Current at $T_J=25^\circ\text{C}$	I_R	5							μAmp
at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$		200							
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	30							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150							$^\circ\text{C}$

NOTES:

- 1- Mounted on epoxy glass PCB with 3mm×3mm Cu pads (40 \geq μm thick)



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RATINGS AND CHARACTERISTIC CURVES

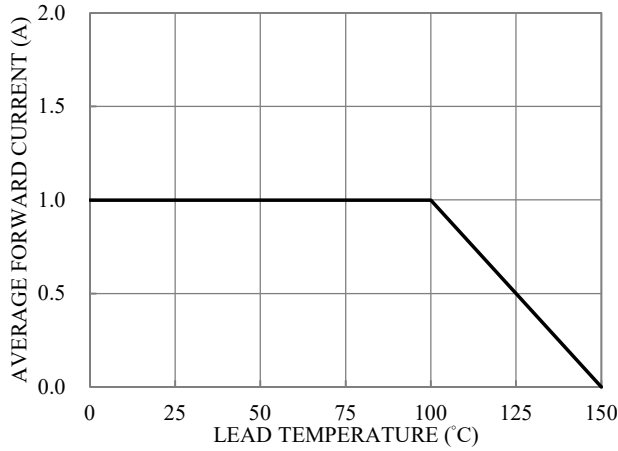


Fig.1-FORWARD CURRENT DERATING CURVE

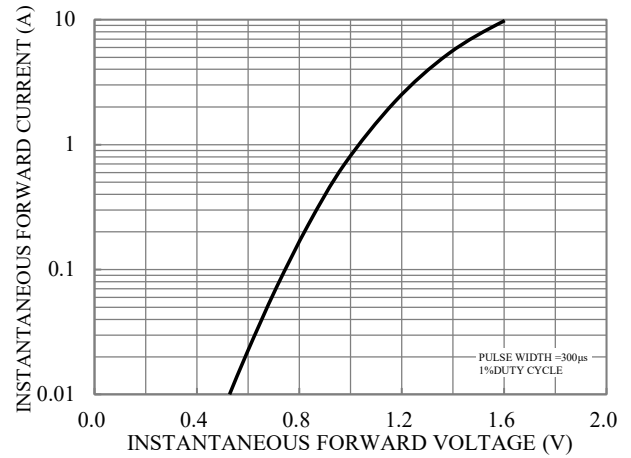


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

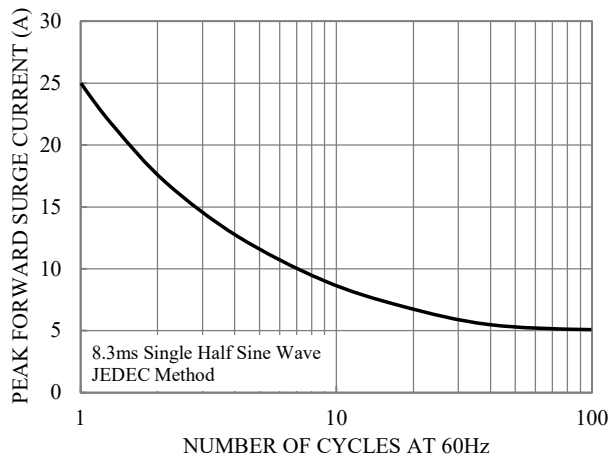


Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

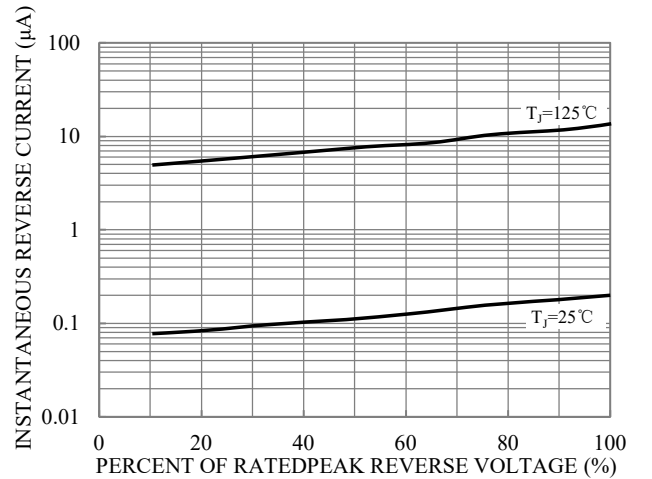


Fig.4-TYPICAL REVERSE CHARACTERISTICS