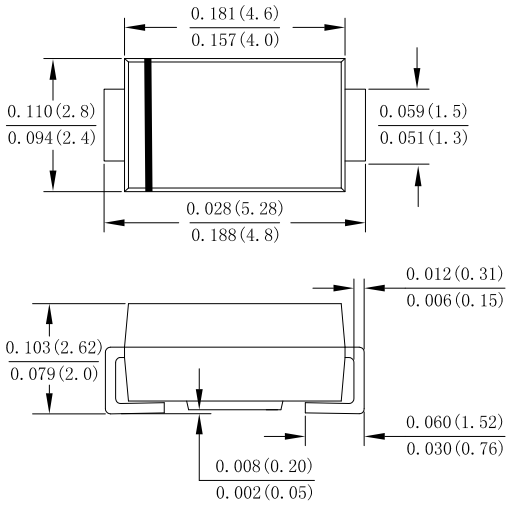
GS1A THRU GS1M

1.0AMP Surface Mount Glass Recovery Rectifier

Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Case: SMA(DO-214AC)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	Unit
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
Average Rectified Output Current @T_L =100℃	$I_{F(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge @$T_{j=25}$ ℃ Current 8.3ms Single half sine-wave @$T_{j=125}$ ℃ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	30 24							A
Non-Repetitive Peak Forward Surge @T_j=25 ℃ Current 1.0ms Single half sine-wave @T_j=125℃ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	60 48							A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I_{FSM}	22.5							A
Rating for fusing (t<8.3ms)	I^2t	3.74							A^2s
Forward Voltage @IF=1.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A =25℃	I_R	5.0							uA
At Rated DC Blocking Voltage @T_A=125℃		200							
Typical Junction Capacitance (Note 1)	C_J	12							pF
Typical reverse recovery time (Note 2)	T_{rr}	1.5							us
Typical Thermal Resistance	$R_{\theta JL}$ $R_{\theta JC}$ $R_{\theta JA}$	23 25 57							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to+150							℃

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Fig. 1 Forward Current Derating Curve

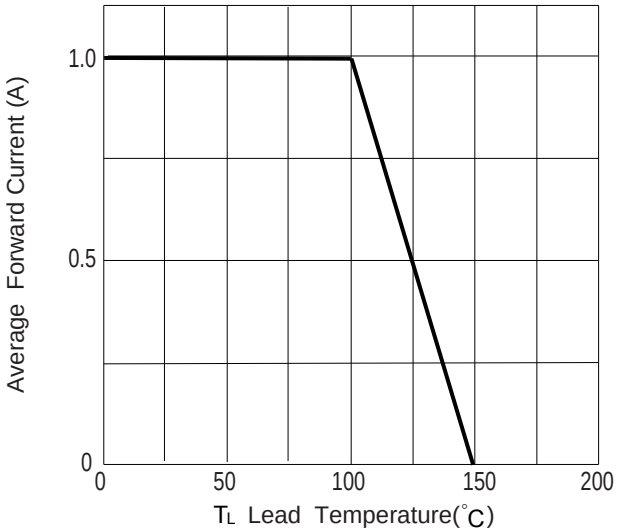


Fig. 2 Typ. Forward Characteristics

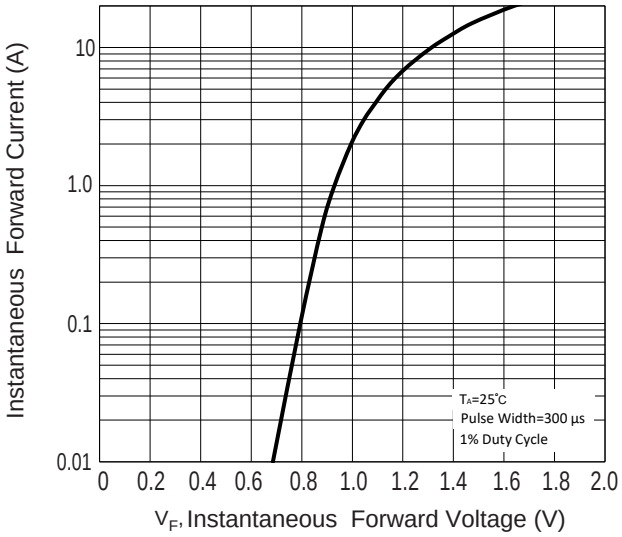


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

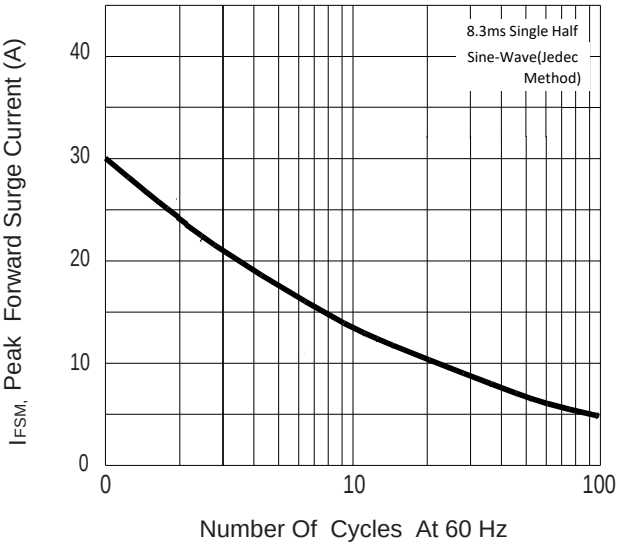


Fig.4 Typical Junction Capacitance

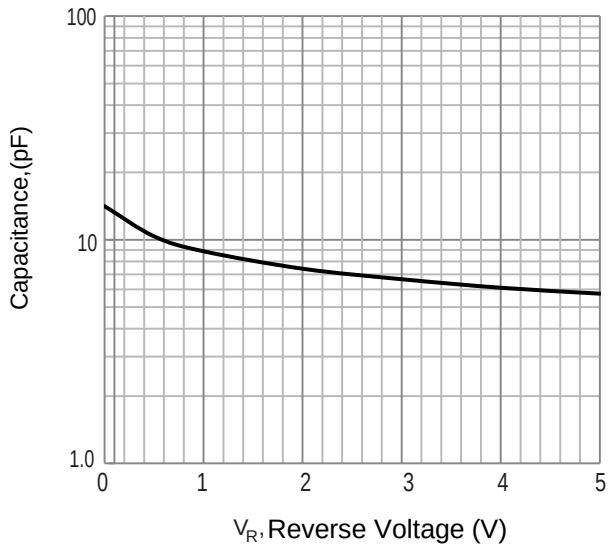


Fig.5 Typical Reverse Chracteristics

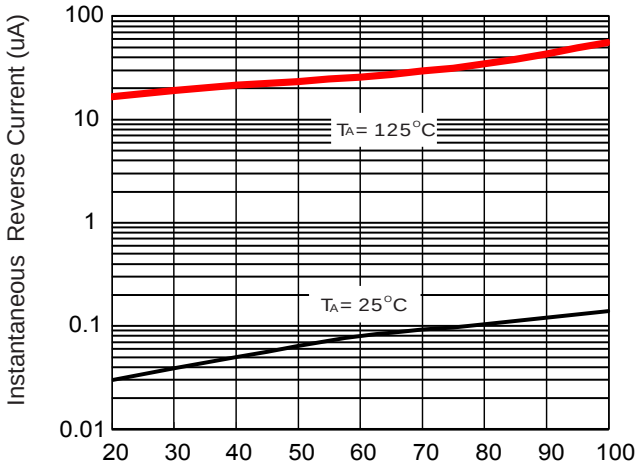
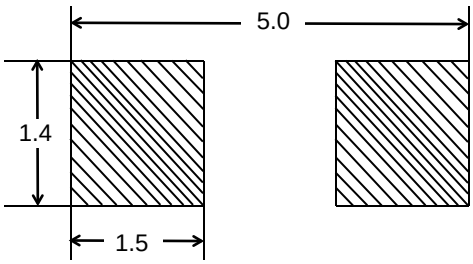


Fig.6 Mounting PAD Layout



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