

# GS1GAL-AU ~ GS1MAL-AU Series

## Surface Mount General Purpose Rectifiers

Voltage

400~1000 V

Current

1 A

### Features

- For surface mounted applications in order to optimize board space
- Ideal for automated placement
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Low profile package
- Glass passivated junction
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0173 grams

### SOD-123FL



## Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

PARAMETER		SYMBOL	GS1GAL-AU	GS1JAL-AU	GS1KAL-AU	GS1MAL-AU	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	400	600	800	1000	V
Maximum RMS Voltage		V <sub>RMS</sub>	280	420	560	700	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	400	600	800	1000	V
Maximum Average Forward Current		I <sub>F(AV)</sub>	1				A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load		I <sub>FSM</sub>	30				A
Typical Junction Capacitance Measured at 1 MHZ And Applied V <sub>R</sub> = 4V		C <sub>J</sub>	7				pF
Typical Thermal Resistance	(Note 1)	R <sub>θJA</sub>	210				°C/W
	(Note 2)	R <sub>θJC</sub>	37				
	(Note 2)	R <sub>θJL</sub>	32				
Operating Junction Temperature Range		T <sub>J</sub>	-55~150				°C
Storage Temperature Range		T <sub>STG</sub>	-55~150				°C

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### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 1\text{A}, T_J = 25^\circ\text{C}$	-	-	1.1	V
Reverse Current	$I_R$	$V_R = V_{RRM}, T_J = 25^\circ\text{C}$	-	-	1	$\mu\text{A}$
		$V_R = V_{RRM}, T_J = 125^\circ\text{C}$	-	-	50	

#### NOTES :

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with  $100\text{cm}^2$  copper pad area.

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### TYPICAL CHARACTERISTIC CURVES

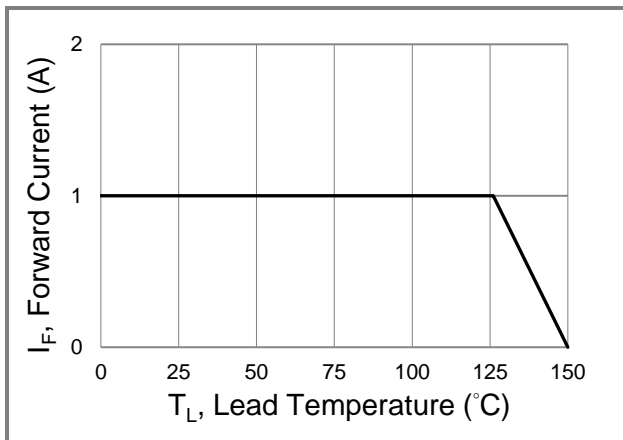


Fig.1 Forward Current Derating Curve

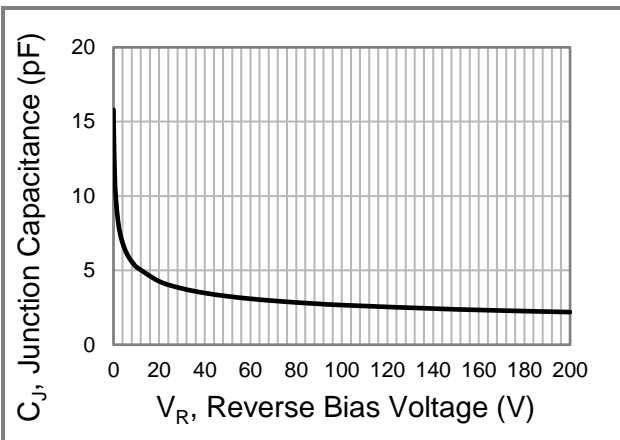


Fig.2 Typical Junction Capacitance

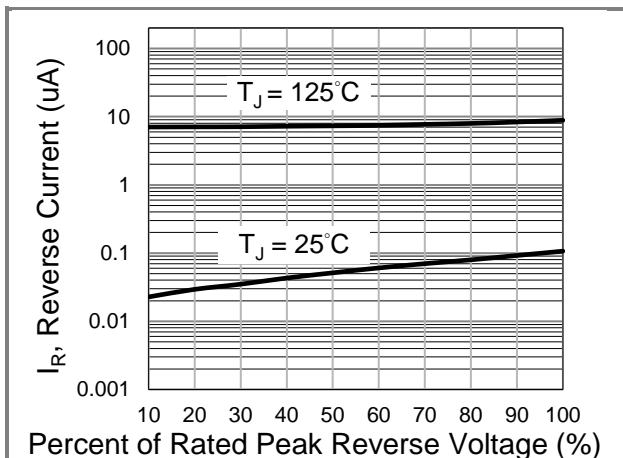


Fig.3 Typical Reverse Characteristics

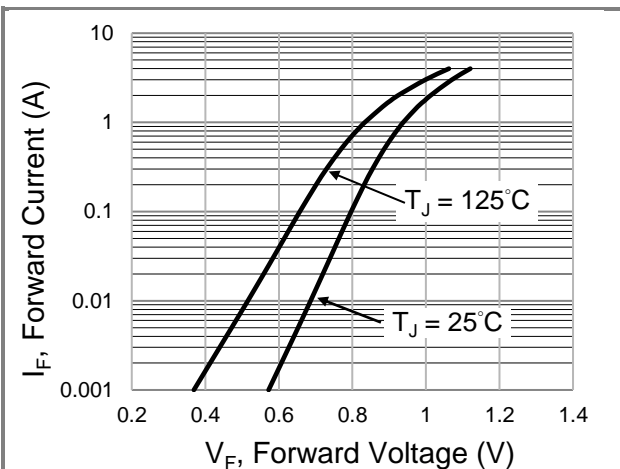


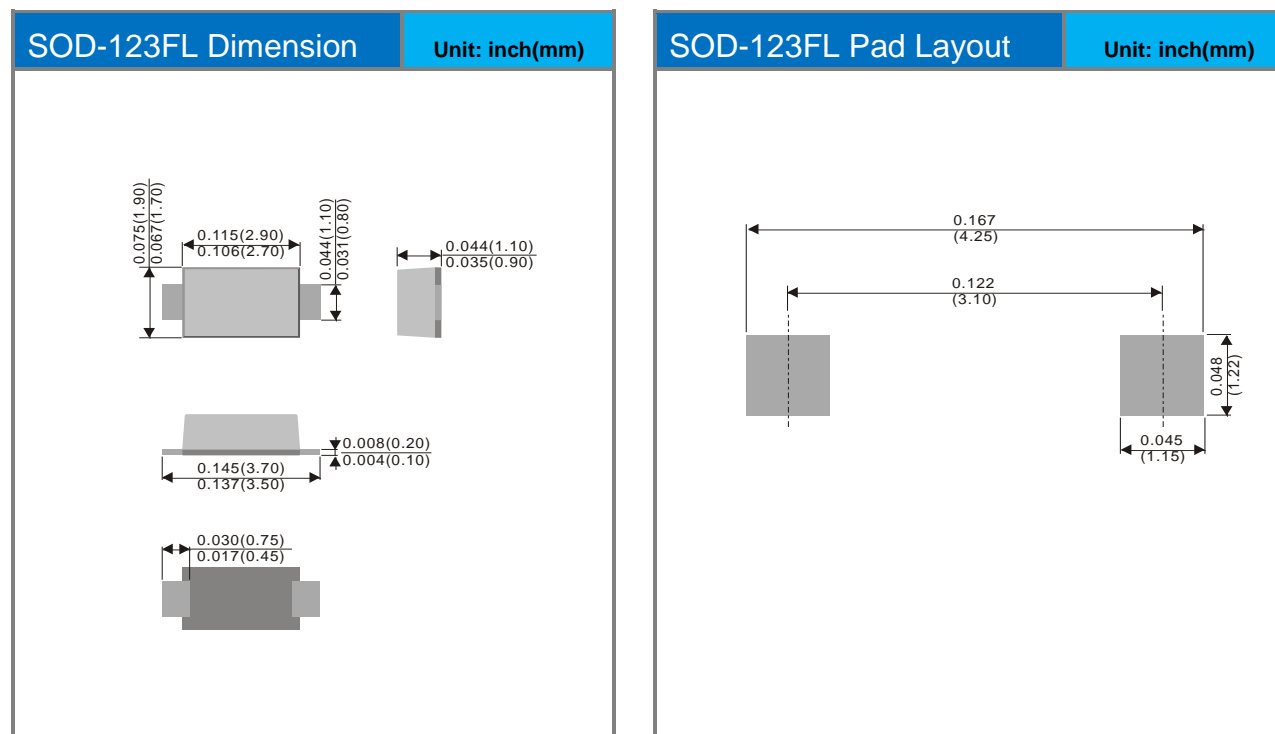
Fig.4 Typical Forward Characteristics

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### Product and Packing Information

Part No.	Package Type	Packing Type	Marking
GS1GAL-AU	SOD-123FL	3K pcs / 7" reel	1GL
GS1JAL-AU	SOD-123FL	3K pcs / 7" reel	1JL
GS1KAL-AU	SOD-123FL	3K pcs / 7" reel	1KL
GS1MAL-AU	SOD-123FL	3K pcs / 7" reel	1ML

### Packaging Information & Mounting Pad Layout



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