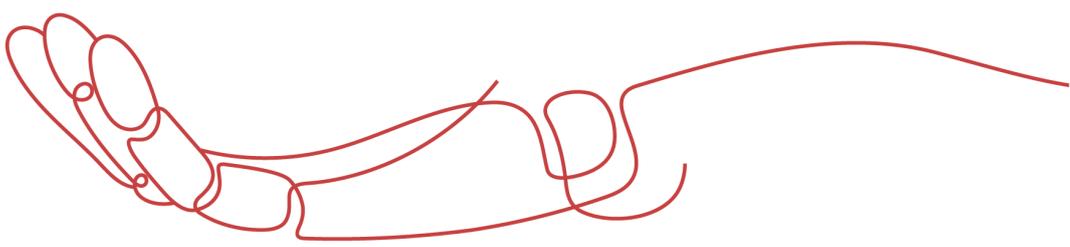


## PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



**Datasheet**



**Resources**



**Samples**

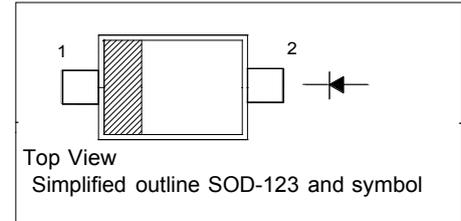
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at [www.jg-semi.cn](http://www.jg-semi.cn). Please email any questions regarding the system integration to [JINGAO\\_questions@jgsemi.com](mailto:JINGAO_questions@jgsemi.com).

**Features**

- Low forward voltage
- High conductance

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode


**Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )**

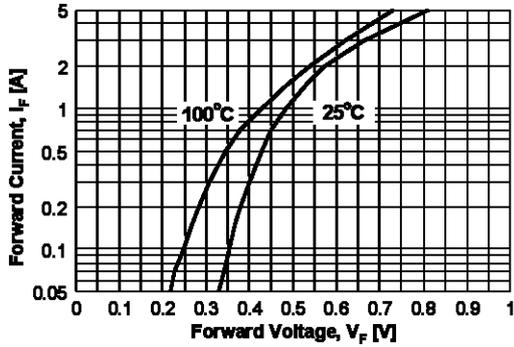
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Reverse Voltage	$V_R$	40	V
Average Rectified Forward Current	$I_{F(AV)}$	500	mA
Non-Repetitive Peak Forward Surge Current (Half Wave, Single Phase, 60 Hz)	$I_{FSM}$	5.5	A
Thermal Resistance Junction to Lead <sup>1)</sup>	$R_{\theta JL}$	118	$^\circ\text{C/W}$
Thermal Resistance Junction to Ambient <sup>2)</sup>	$R_{\theta JA}$	206	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	- 65 to + 150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

1) Device mounted on FR-4 PCB 0.013 mm.

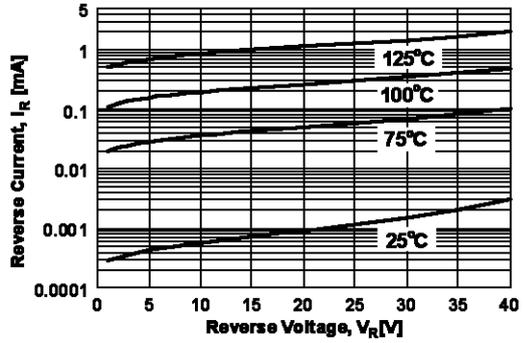
2) 1 inch" pad size (1 X 0.5 inch for each lead ) on FR4 board.

**Characteristics at  $T_a = 25\text{ }^\circ\text{C}$** 

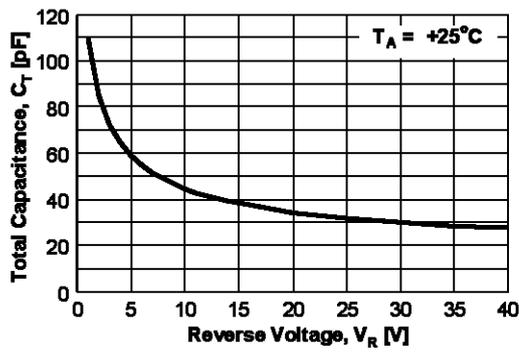
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.5\text{ A}$ at $I_F = 1\text{ A}$ at $I_F = 0.5\text{ A}, T_a = 100\text{ }^\circ\text{C}$ at $I_F = 1\text{ A}, T_a = 100\text{ }^\circ\text{C}$	$V_F$	0.51 0.62 0.46 0.61	V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 40\text{ V}$ at $V_R = 20\text{ V}, T_a = 100\text{ }^\circ\text{C}$ at $V_R = 40\text{ V}, T_a = 100\text{ }^\circ\text{C}$	$I_R$	10 20 5 13	$\mu\text{A}$ $\mu\text{A}$ mA mA



**Figure 1. Forward Voltage Characteristics**



**Figure 2. Reverse Current vs Reverse Voltage**

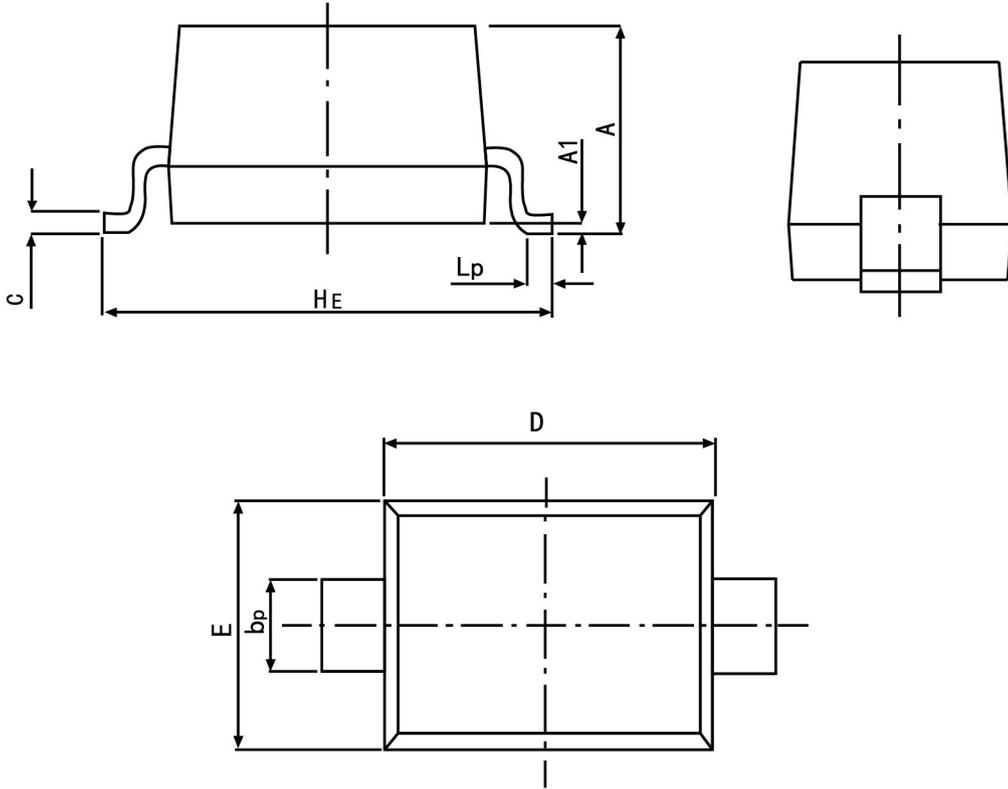


**Figure 3. Total Capacitance**

**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-123



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.20
bp	0.50	0.60
C	0.100	0.135
D	2.55	2.75
E	1.55	1.65
HE	3.55	3.85
A1	0.01	0.10
Lp	0.20	0.50

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