



## DESCRIPTION

The 1N4001WA~1N4007WA are available in SOD-123FL package

## FEATURES

- Available in SOD-123FL package

## ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	1N4001WA
	1N4002WA
	1N4003WA
	1N4004WA
	1N4005WA
	1N4006WA
	1N4007WA
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

## PIN DESCRIPTION





## ABSOLUTE MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter		Symbol	1N4001WA	1N4002WA	1N4003WA	1N4004WA	1N4005WA	1N4006WA	1N4007WA	Unit
Maximum Repetitive 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
Maximum Average Forward Rectified Current at $T_A=65^\circ\text{C}$		$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		$I_{FSM}$	25							A
Maximum Instantaneous Forward Voltage at 1A		$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	$I_R$	5							uA
	$T_A=125^\circ\text{C}$		100							
Typical Junction Capacitance		$C_j$	4							pF
Typical Thermal Resistance		$R_{\theta JA}$	180							°C/W
Operating and Storage Temperature Range		$T_J,$ $T_{STG}$	-55 ~+150							°C

NOTE1: Measured at 1MHz and applied reverse voltage of 4 V D.C.

NOTE2: Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted



## TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

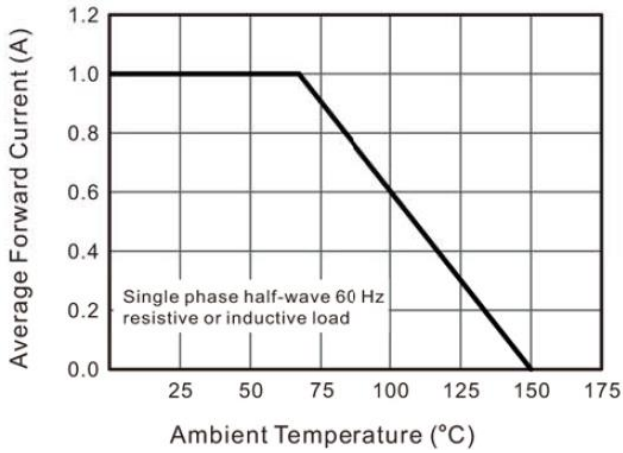


Figure. 2 Typical Instantaneous Reverse Characteristics

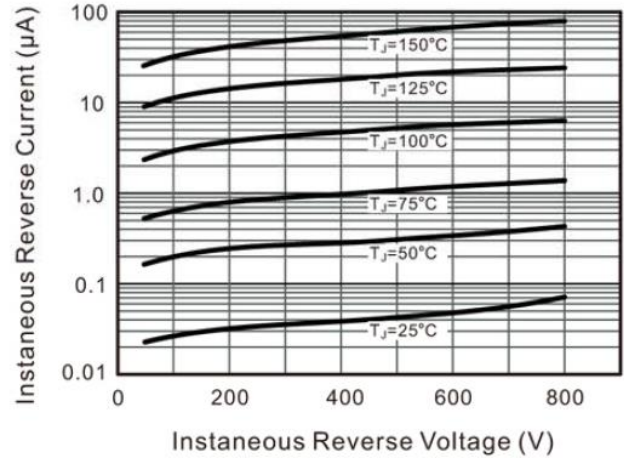


Figure. 3 Typical Forward Characteristic

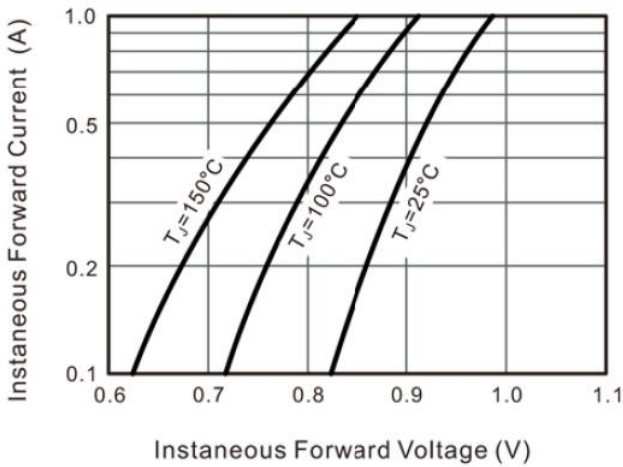
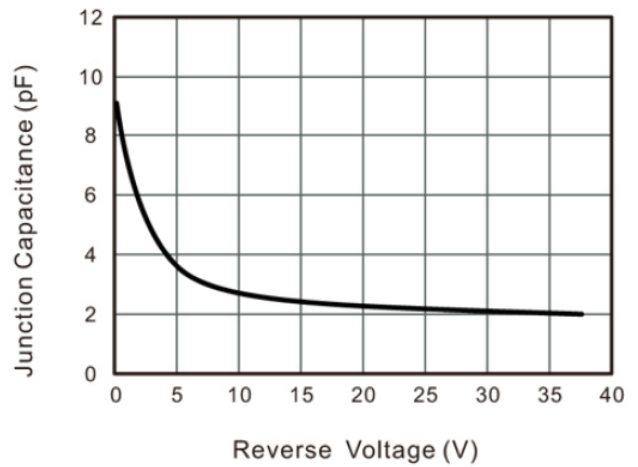
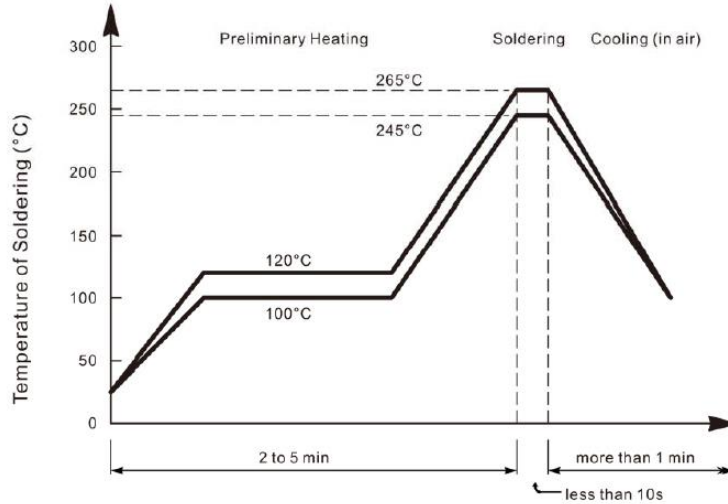


Figure. 4 Typical Junction Capacitance

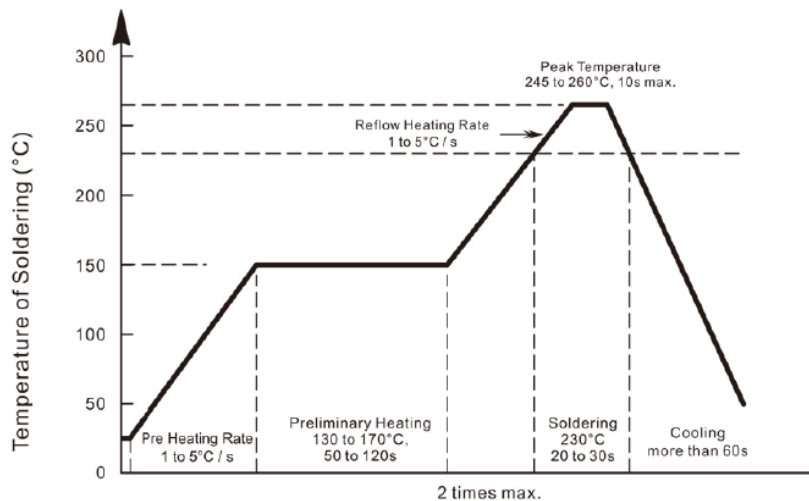




### Recommended Condition of Flow Soldering



### Recommended Condition of Reflow Soldering



Recommended peak temperature is over 245°C. If peak temperature is below 245°C, you may adjust the following parameters; time length of peak temperature(longer), time length of soldering (longer), thickness of solder paste (thicker)

### Condition of hand soldering

Temperature: 370°C

Time: 3s max.

Times: one time

### Remark:

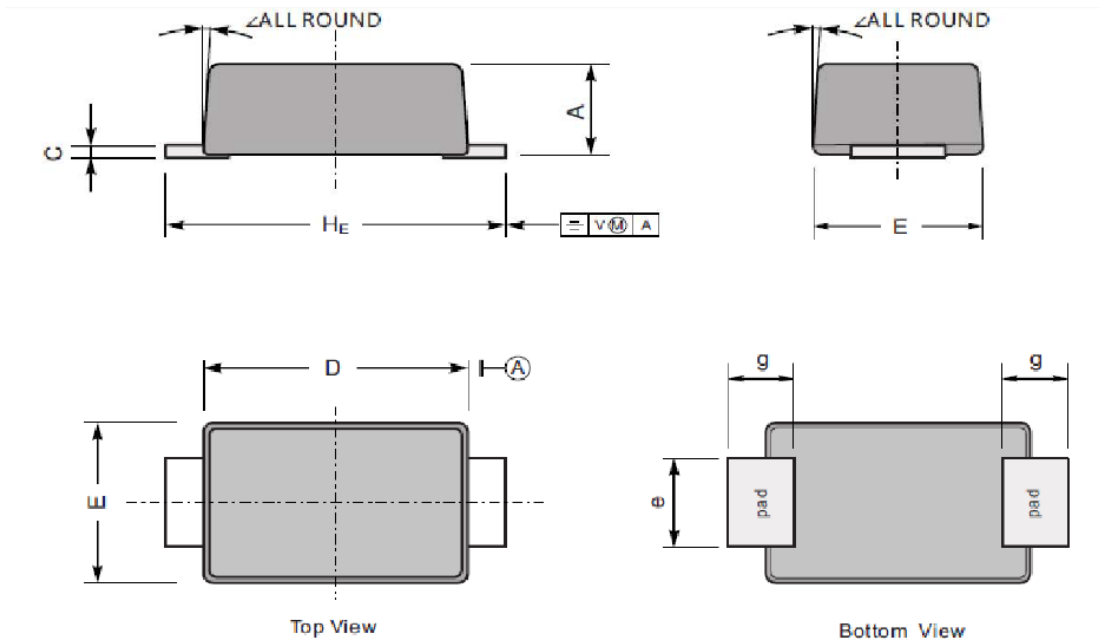
Lead free solder paste (96.5Sn/3.0Ag/5Cu)



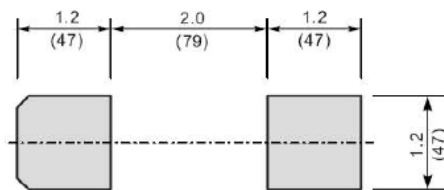
**PACKAGE INFORMATION**

Dimension in SOD-123FL (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit:  $\frac{\text{mm}}{\text{mil}}$

UNIT		A	c	D	E	e	g	H <sub>E</sub>	$\angle$
mm	Max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	Min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	Max	43	7.9	114	75	43	35	150	
	Min	35	4.7	102	67	31	28	138	



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