



DESCRIPTION

The FM101W ~ FM107W are available in SOD-123FL Package

FEATURES

- Available in SOD-123FL Package

ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	FM101W
	FM102W
	FM103W
	FM104W
	FM105W
	FM106W
	FM107W
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



1. CATHODE
2. ANODE



ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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	FM 101W	FM 102W	FM 103W	FM 104W	FM 105W	FM 106W	FM 107W	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 $T_A=65^\circ\text{C}$	$I_{F(AV)}$	1.0							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	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$ 5.0 $T_A=100^\circ\text{C}$ 100							μA
Maximum Reverse Recovery Time ^{NOTE1}	t_{rr}	150				250	500		ns
Typical Junction Capacitance ^{NOTE2}	C_J	15							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~150							$^\circ\text{C}$

NOTE1: Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$

NOTE2: Measured at 1MHz and applied reverse voltage of 4V D.C



TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

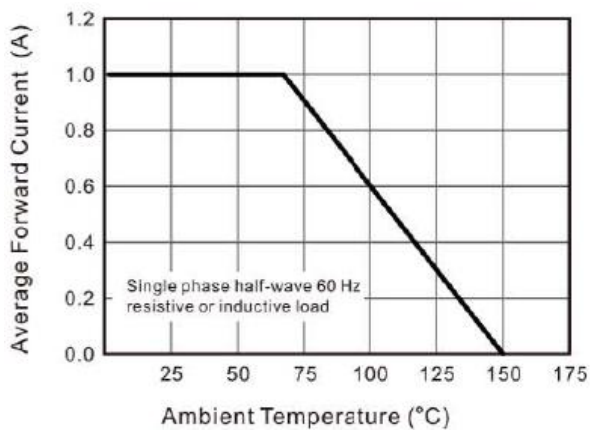


Figure. 2 Typical Reverse Characteristics

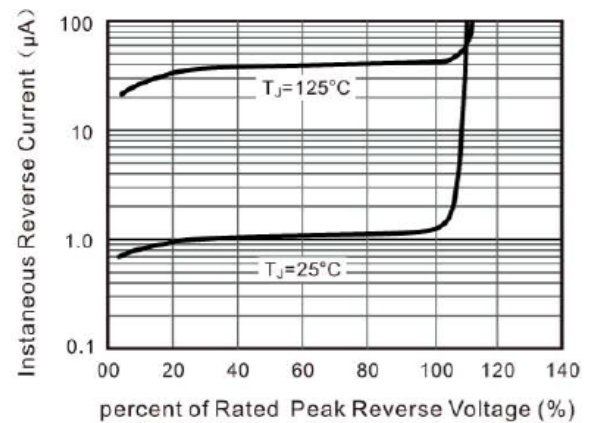


Figure. 3 Typical Instantaneous Forward Characteristic

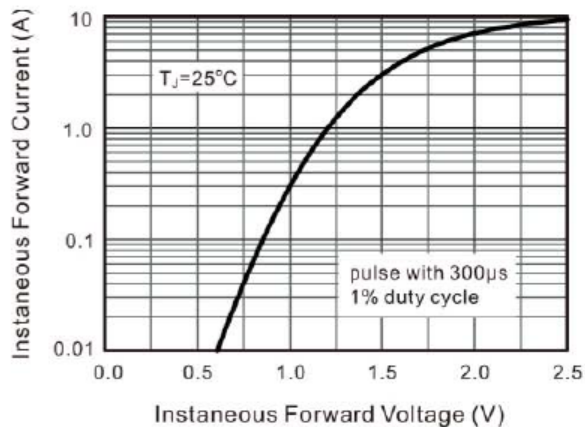


Figure. 4 Typical Junction Capacitance

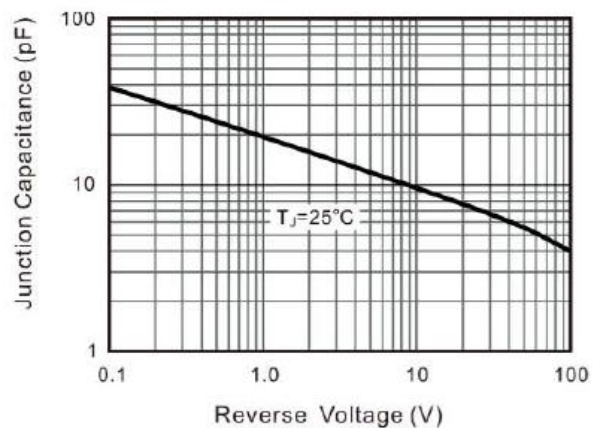
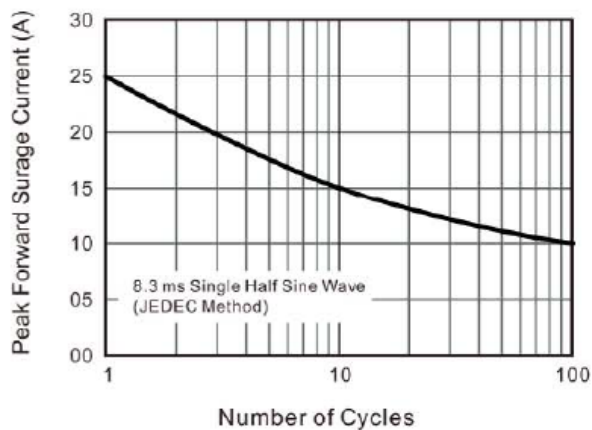
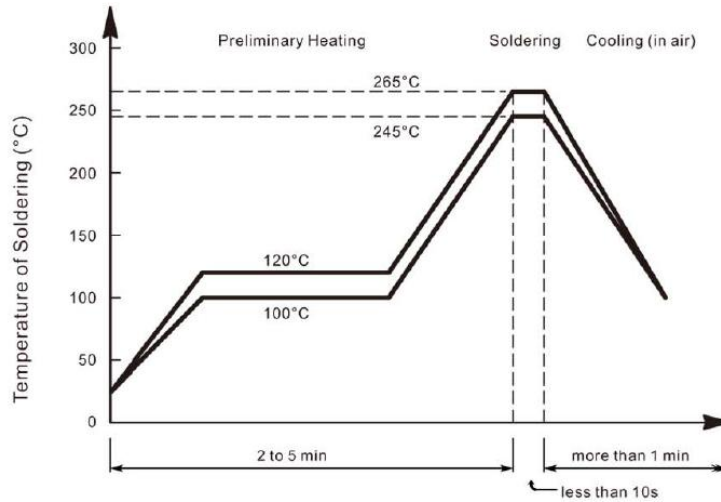


Figure. 5 Maximum Non-Repetitive Peak Forward Surge Current

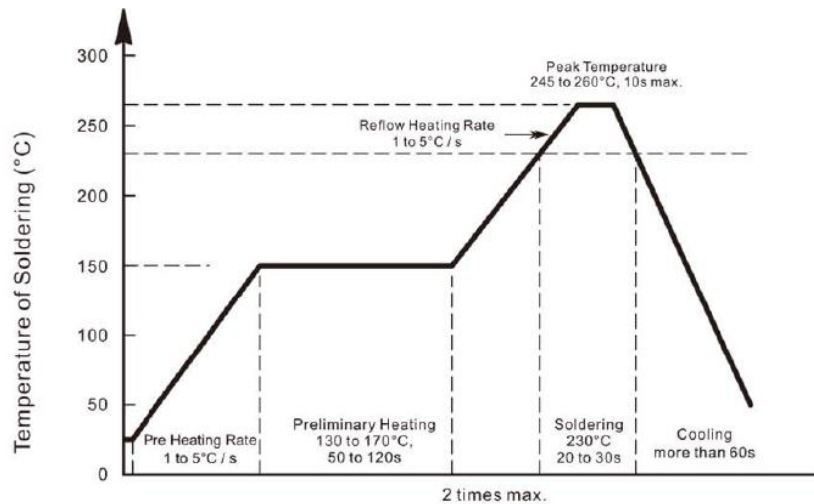




Recommended Condition of Flow Soldering



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

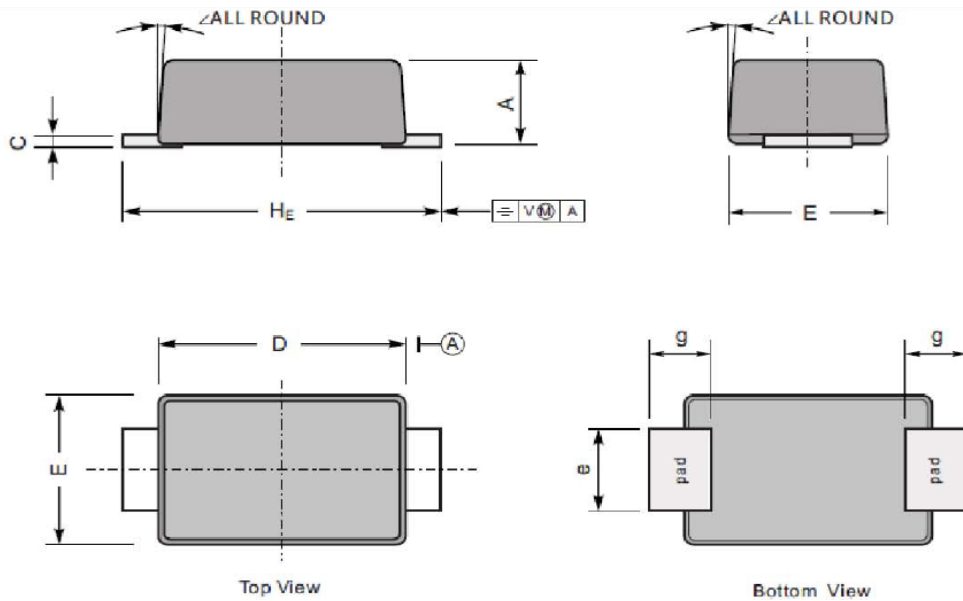
Lead free solder paste (96.5Sn/3.0Ag/0.5Cu)



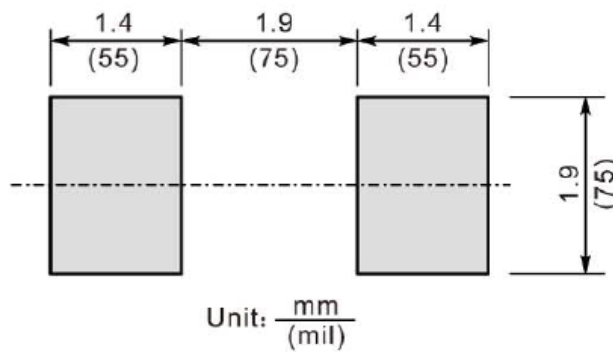
PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



UNIT		A	B	C	E	e	g	H _E	\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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