SK22WA~SK220WA

SCHOTTKY BARRIER RECTIFIER
REVERSE VOLTAGE 20V TO 200V FORWARD CURRENT 2.0A

DESCRIPTION

The SK22WA~SK220WA are available in SOD-123FL Package

FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Available in SOD-123FL Package

ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	SK22WA
	SK24WA
	SK26WA
	SK28WA
	SK210WA
	SK212WA
	SK215WA
	SK220WA
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SK22 WA	SK24 WA	SK26 WA	SK28 WA	SK210 WA	SK212 WA	SK215 WA	SK220 WA	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	42	56	80	100	105	140	V
Maximum DC Blacking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	40								A
Max Instantaneous Forward Voltage at 2A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current at Rated DC Reverse Voltage T_A=25°C T_A=100°C	I_R	0.5 10			0.3 5					mA
Typical Junction Capacitance[NOTE1]	C_J	220		80						pF
Operating Junction Temperature Range	T_J	-55~+125								°C
Storage Temperature Range	T_{STG}	-55~+150								°C

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

TYPICAL CHARACTERISTICS

Figure 1. Forward Current Derating Curve

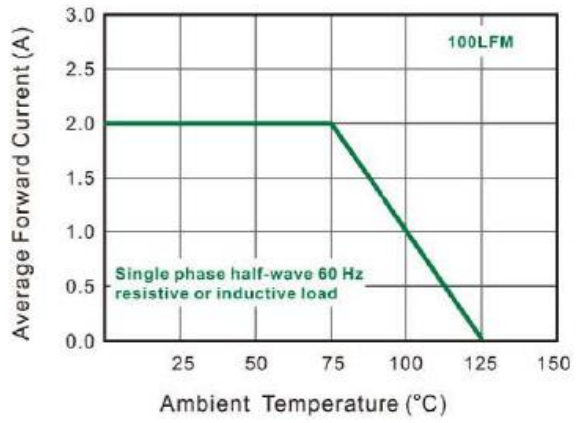


Figure 2. Typical Reverse Characteristics

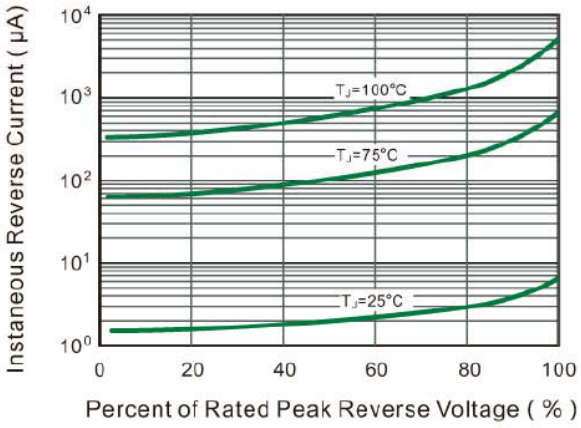


Figure 3. Typical Forward Characteristic

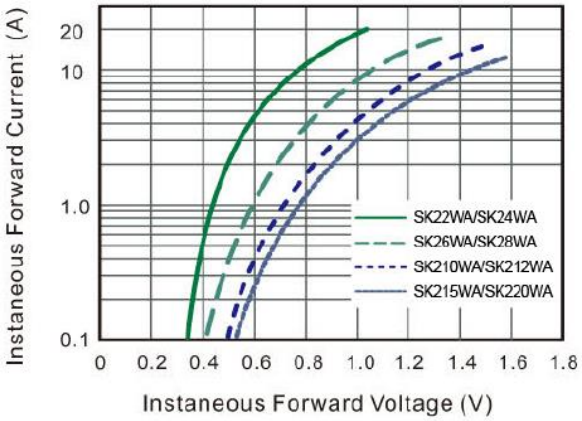


Figure 4. Typical Junction Capacitance

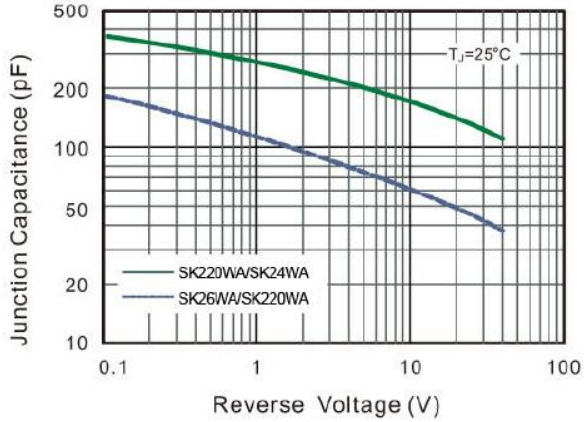
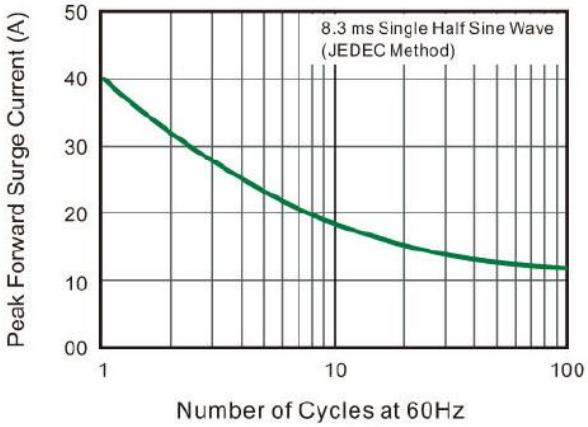
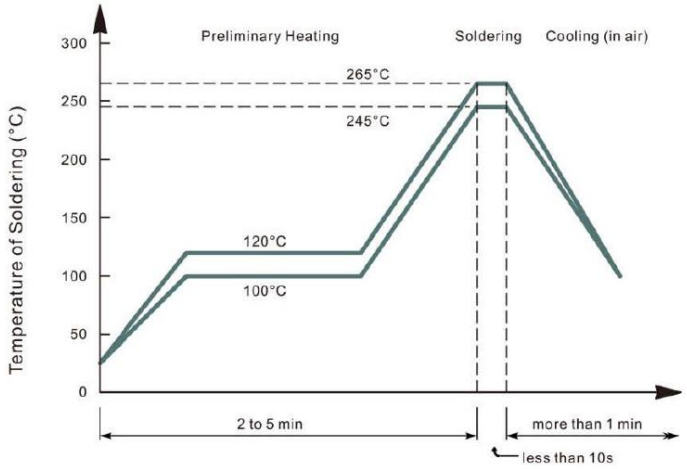


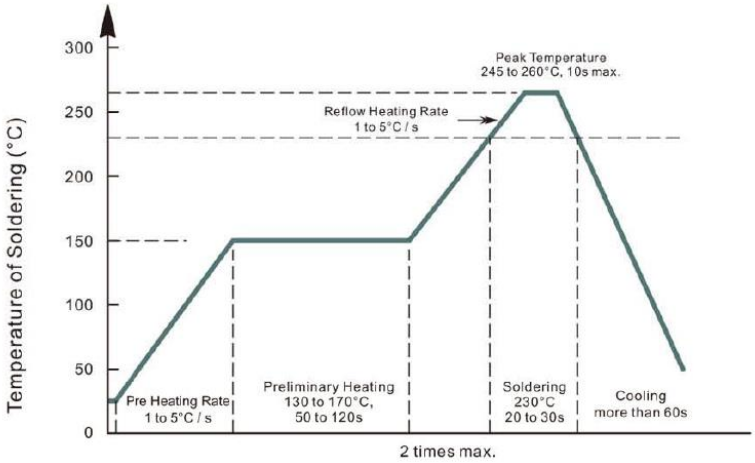
Figure 5. Maximum Non-Repetitive Peak Forward Surge Current



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: 320°C

Time: 3s max.

Times: one time

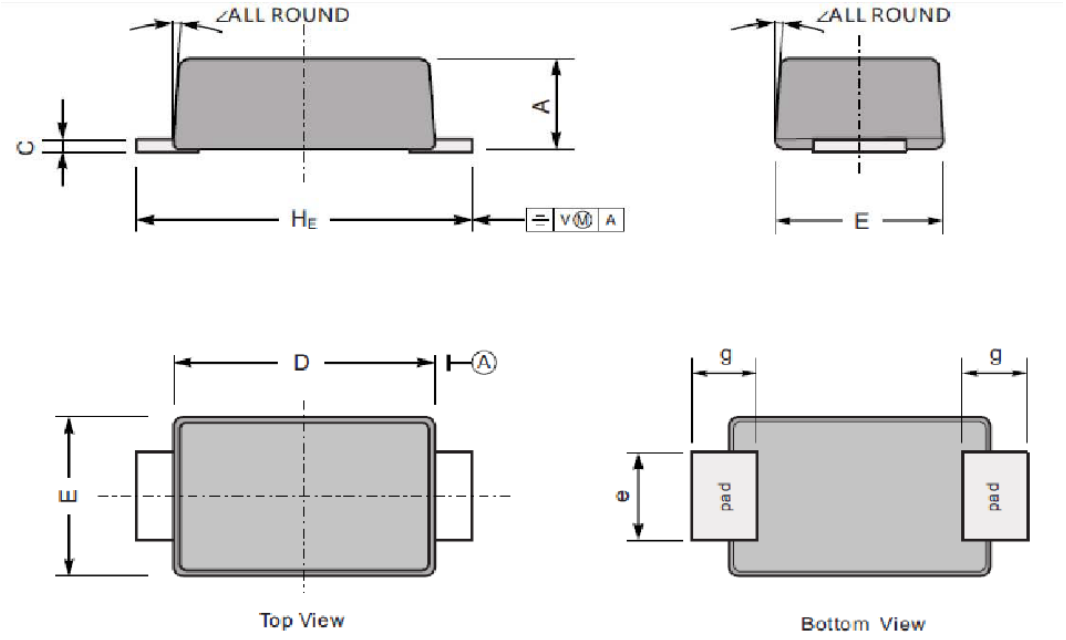
Remark

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

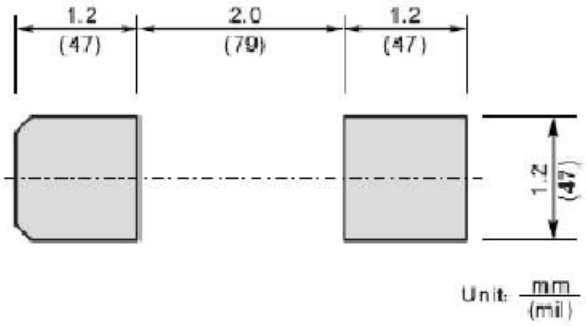
PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)

Plastic Surface mounted package; 2 leads



The recommended mounting pad size



UNIT		A	C	D	E	e	g	H_E	∠
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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