

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

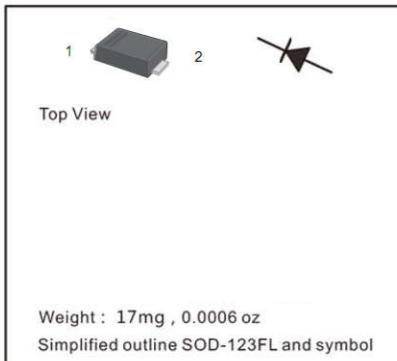
Forward Current - 1.0 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

● 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



● 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	Symbols	SK12WA	SK14WA	SK16WA	SK18WA	SK110WA	SK112WA	SK115WA	SK120WA	Units													
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 Blocking Voltage	V _{DC}	20	40	60	80	100	120	150	200	V													
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0								A													
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	40				25				A													
Max Instantaneous Forward Voltage at 1 A	V _F	0.55		0.70		0.85		0.90		V													
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	0.3 10			0.2 5			0.1 2		mA													
Typical Junction Capacitance ¹⁾	C _J	110		80						pF													
Typical Thermal Resistance ²⁾	R _{θJA}	115								°C/W													
Operating Junction Temperature Range	T _J	-55 ~ +125								°C													
Storage Temperature Range	T _{stg}	-55 ~ +150								°C													

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

2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

Fig.1 Forward Current Derating Curve

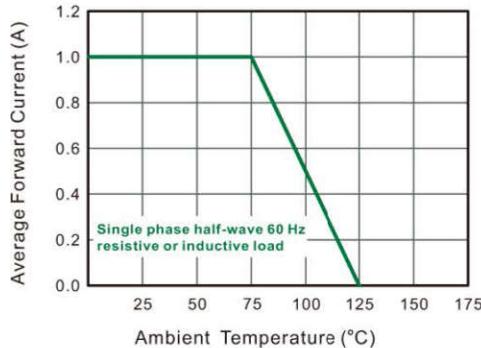


Fig.2 Typical Reverse Characteristics

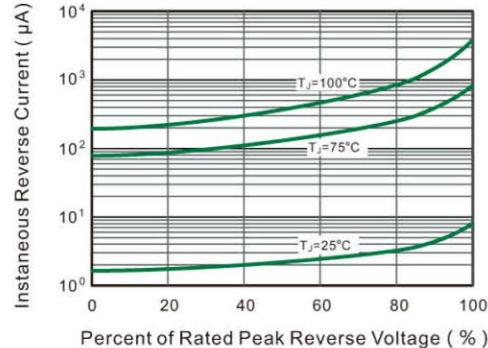


Fig.3 Typical Forward Characteristic

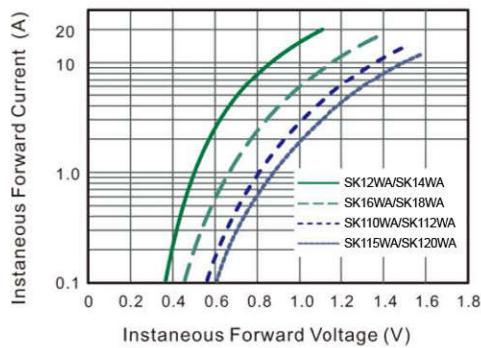


Fig.4 Typical Junction Capacitance

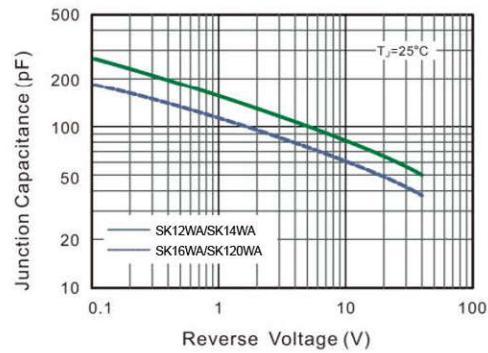


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

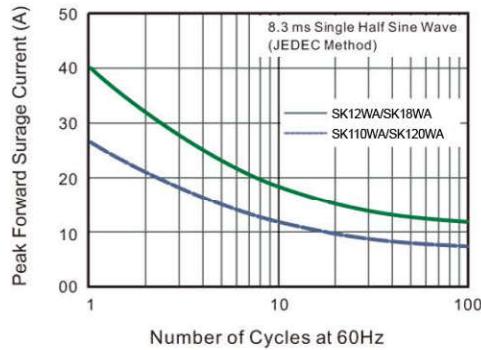
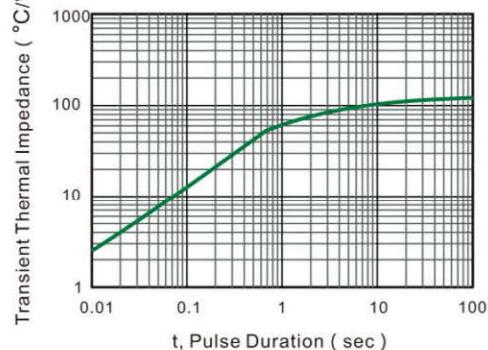


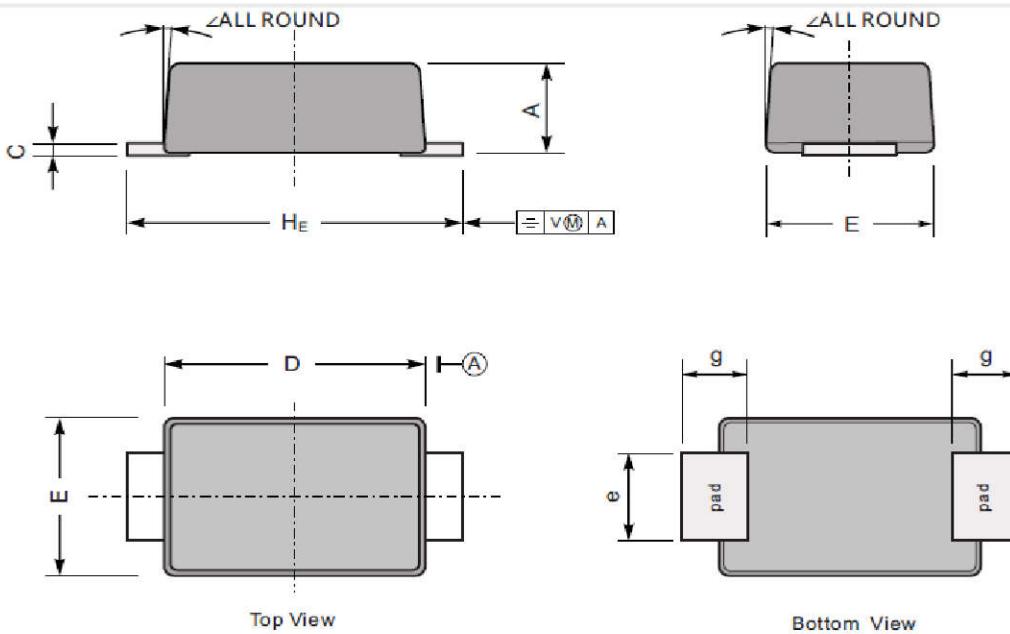
Fig.6-Typical Transient Thermal Impedance



PACKAGE OUTLINE

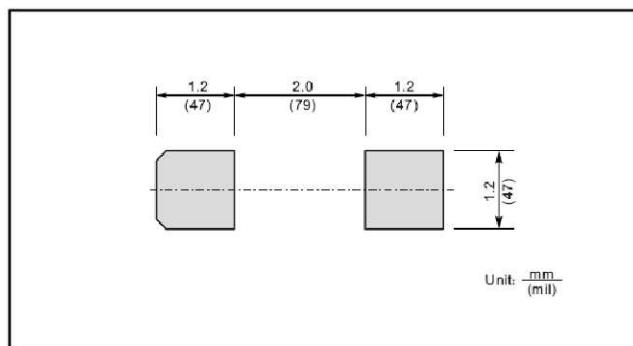
Plastic surface mounted package; 2 leads

SOD1257L

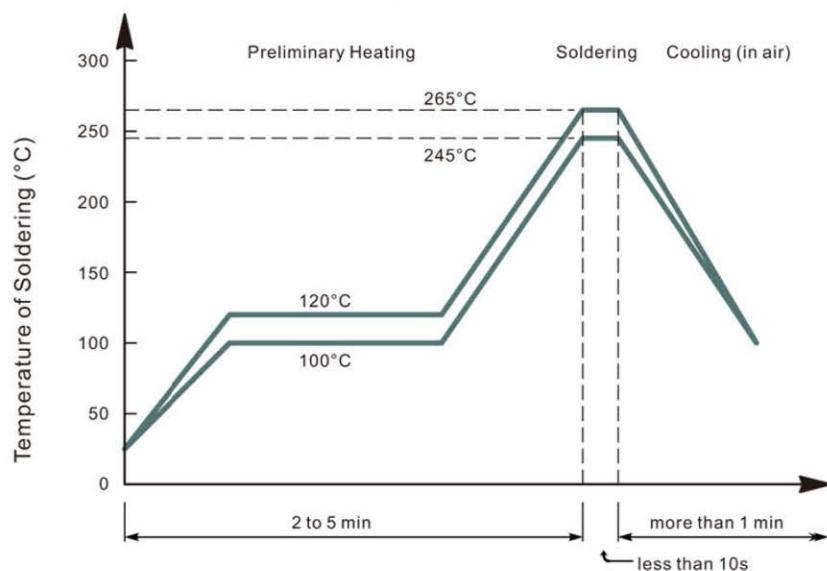


UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	7°
	min	35	4.7	102	67	31	28	138	

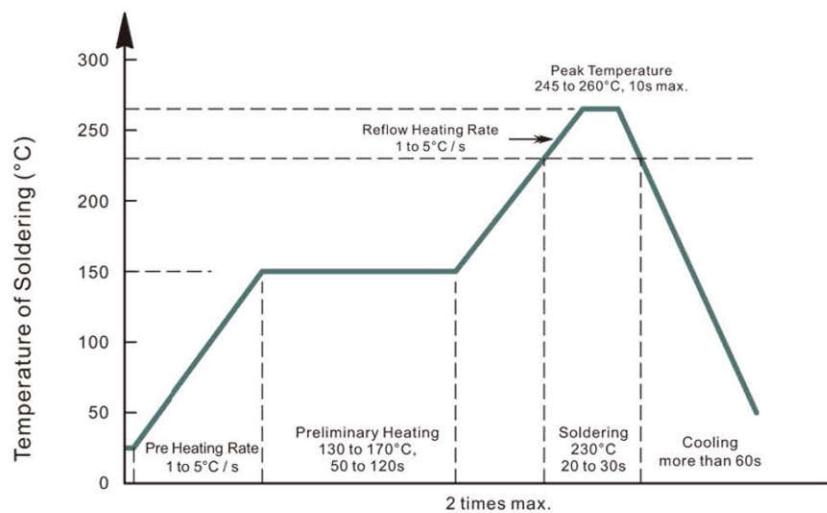
The recommended mounting pad size



- 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)

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