

Surface Mount Schottky Barrier Rectifier Reverse Voltage - 20 to 200 V Forward Current - 2.0A

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 $^{\circ}$ C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 $^{\circ}$ C

Parameter	Symbols	SK22WA	SK24WA	SK26WA	SK28WA	SK210WA	SK212WA	SK215WA	SK220WA	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	٧
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)}	2.0								Α
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	40								Α
Max Instantaneous Forward Voltage at 2 A	V _F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current $T_a = 25$ °C at Rated DC Reverse Voltage $T_a = 100$ °C	I _R	0.5 10 0.3 5					mA			
Typical Junction Capacitance 1)	Cj	2:	20	80						pF
Operating Junction Temperature Range	Tj	-55 ~ +125							°C	
Storage Temperature Range	T_{stg}	-55 ~ +150							°C	

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





Fig.1 Forward Current Derating Curve

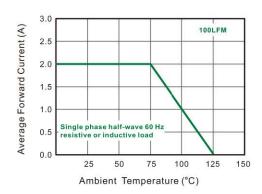


Fig.2 Typical Reverse Characteristics

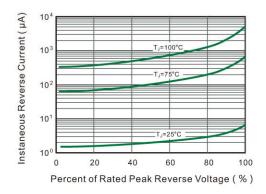


Fig.3 Typical Forward Characteristic

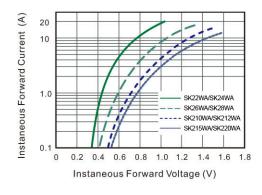


Fig.4 Typical Junction Capacitance

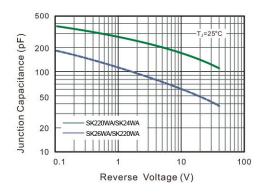
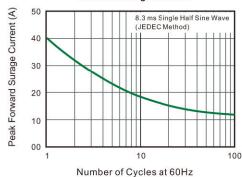


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



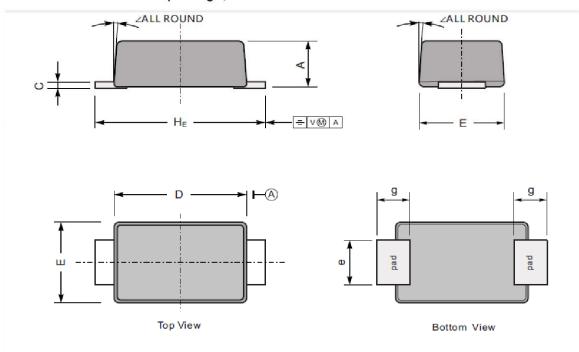
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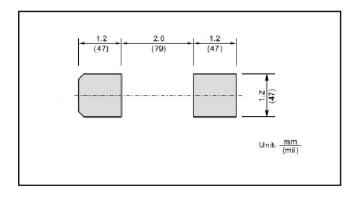
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



UNIT		Α	С	D	Е	е	g	HE	2	
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		

The recommended mounting pad size



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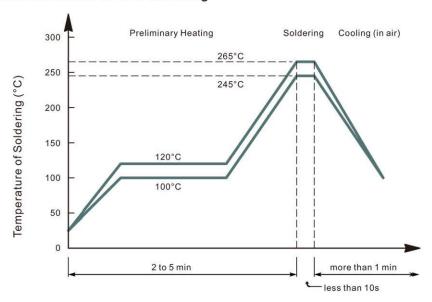
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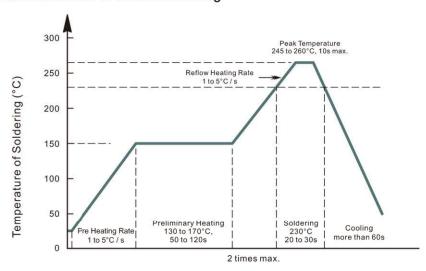




· Recommended condition of flow soldering



· Recommended condition of reflow soldering



Recommended peak temperature is over 245 $^{\circ}$ C. If peak temperature is below 245 $^{\circ}$ 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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