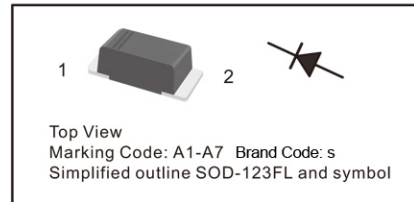


# SK4001WA-SK4007WA

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 1 A



● **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	Symbols	SK4001WA	SK4002WA	SK4003WA	SK4004WA	SK4005WA	SK4006WA	SK4007WA	Units
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 $T_a = 65\text{ °C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25							A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$	$I_R$	5 100							$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_j$	4							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	180							°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 ~ +150							°C

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

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

# SK4001WA-SK4007WA

Fig.1 Forward Current Derating Curve

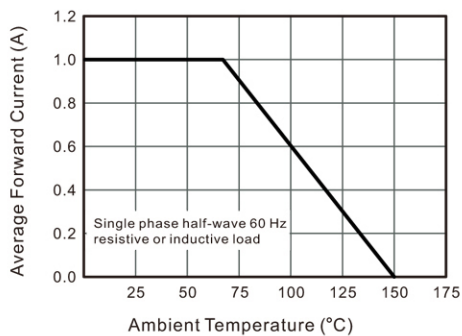


Fig.2 Typical Instantaneous Reverse Characteristics

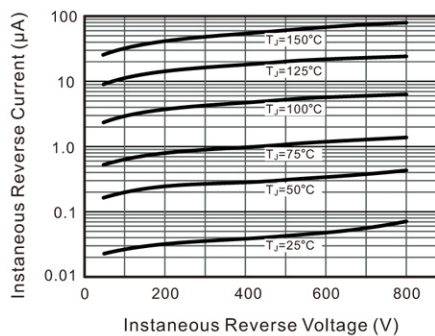


Fig.3 Typical Forward Characteristic

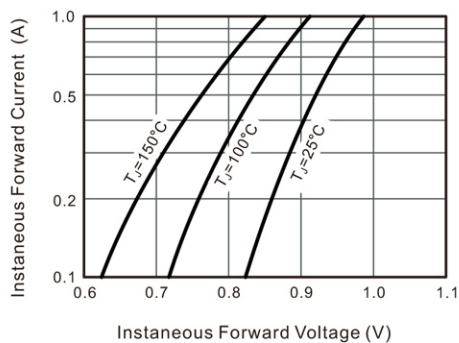
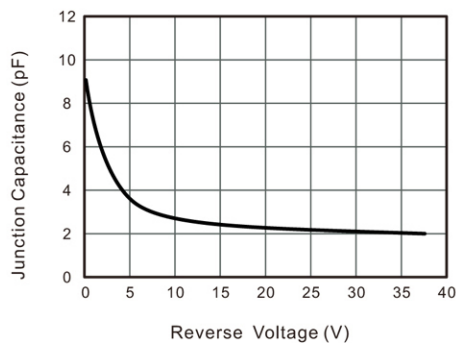


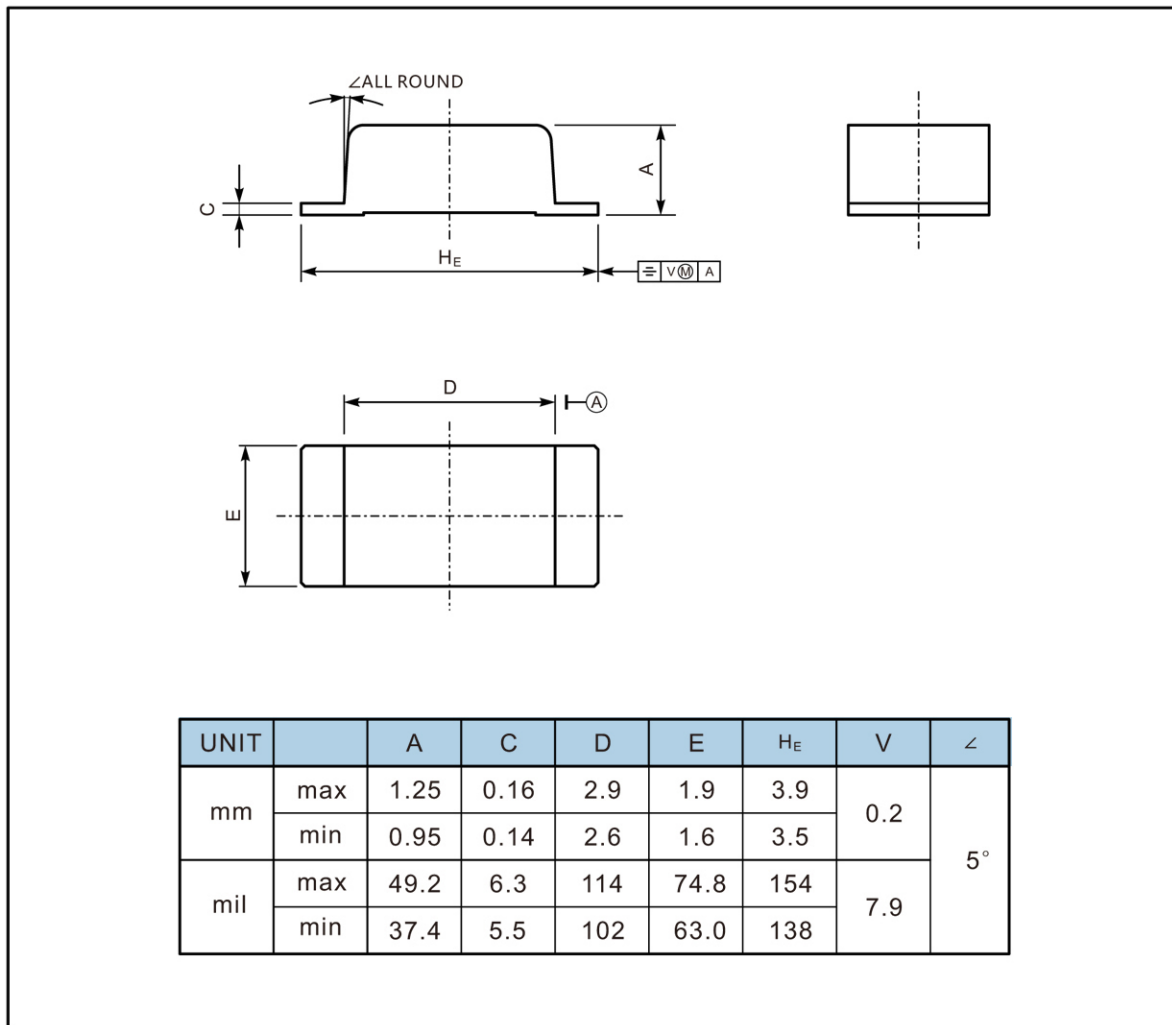
Fig.4 Typical Junction Capacitance



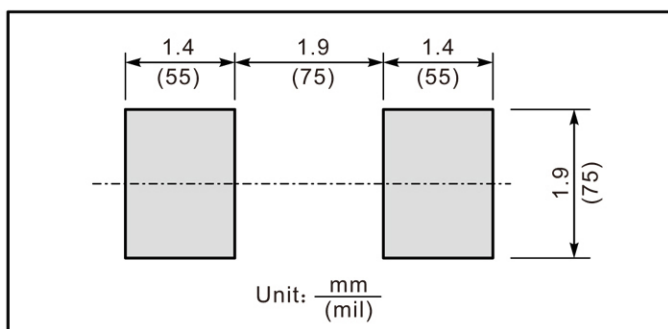
# SK4001WA-SK4007WA

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



### The recommended mounting pad size

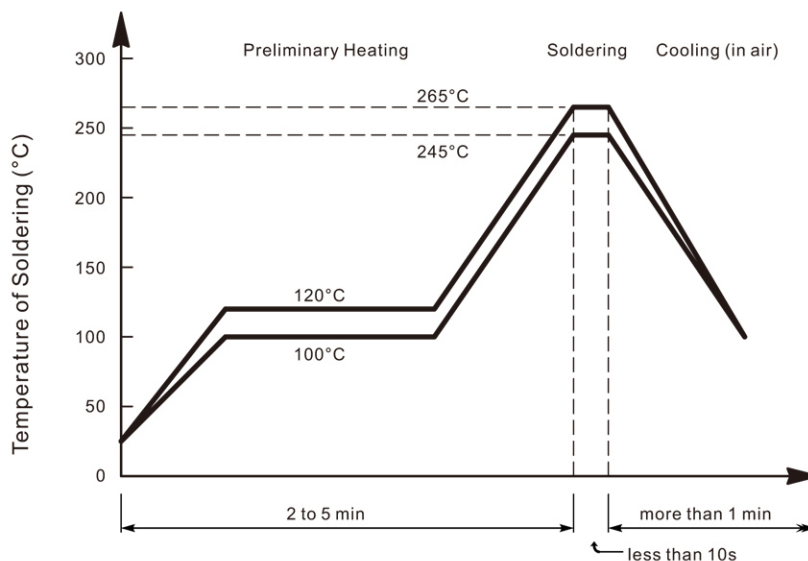


### Marking

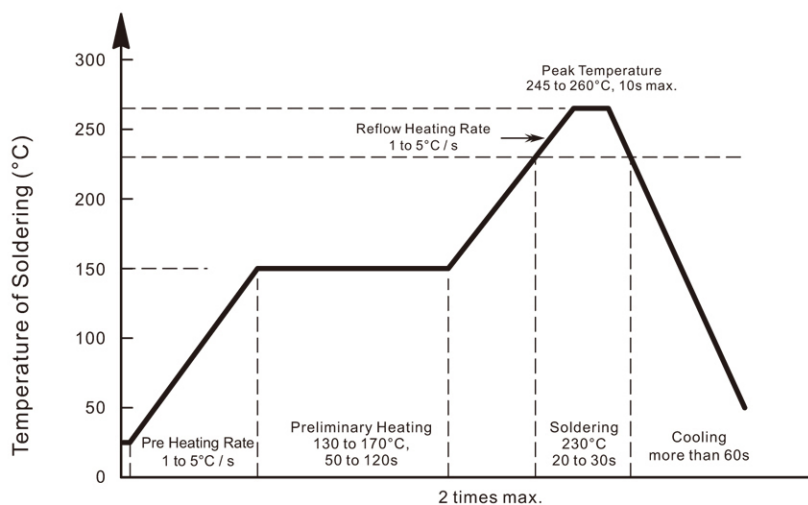
Type number	Marking code
SK 4001WA	A1
SK 4002WA	A2
SK 4003WA	A3
SK 4004WA	A4
SK 4005WA	A5
SK 4006WA	A6
SK 4007WA	A7

# SK4001WA-SK4007WA

## • 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)