

# SK87 Thru SK8B

Surface Mount Schottky Rectifier  
 Reverse Voltage 70-100V Forward Current 8A

## Features

- Schottky barrier diodes
- Low forward voltage drop
- High junction temperature
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O



DO-214AB (SMC)

## Applications

- Low voltage, high frequency inverters
- Free wheeling
- Polarity protection



## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

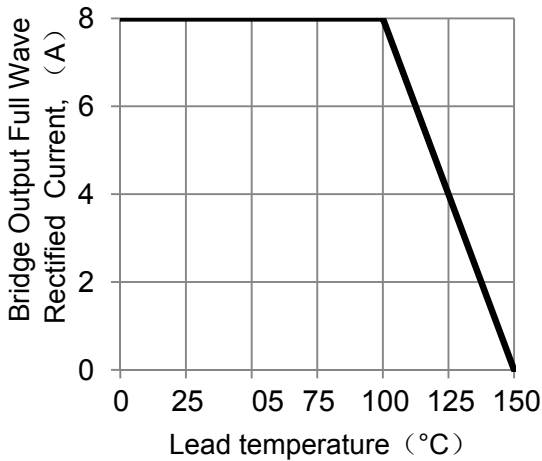
Parameter	Symbol	SK87	SK88	SK89	SK8B	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	70	80	90	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	42	56	63	70	V
Maximum DC blocking Voltage	V <sub>DC</sub>	70	80	90	100	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	8.0				A
Peak Forward Surge Current 8.3 mS Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	175				A
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150				°C

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

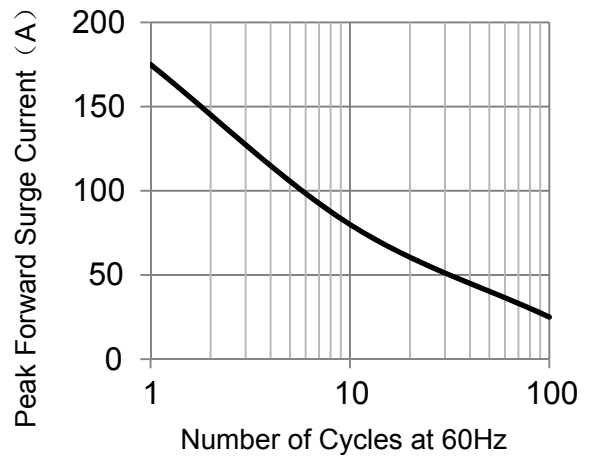
Parameter	Test Conditions	Symbol	SK87	SK88	SK89	SK8B	Unit
Maximum Instantaneous Forward Voltage	I <sub>F</sub> =8A, T <sub>A</sub> =25°C	V <sub>F</sub>	0.85				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	30				µA
	T <sub>A</sub> =100°C		1000				
Typical Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	470				pF

Note1: Thermal resistance from junction to lead, mounted on PCB with 30.0x30.0mm copper pads

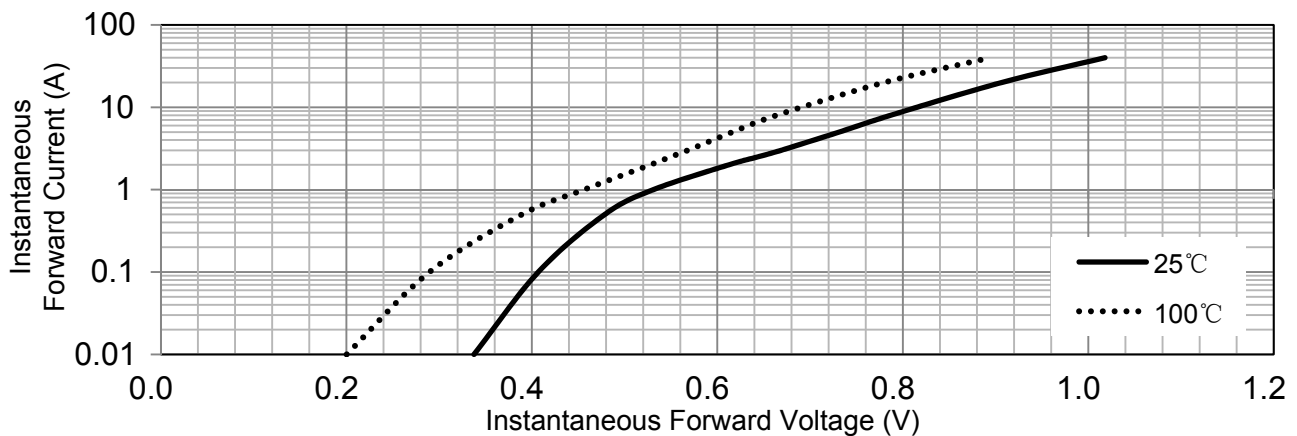
## Typical Electrical and Characteristics Curves



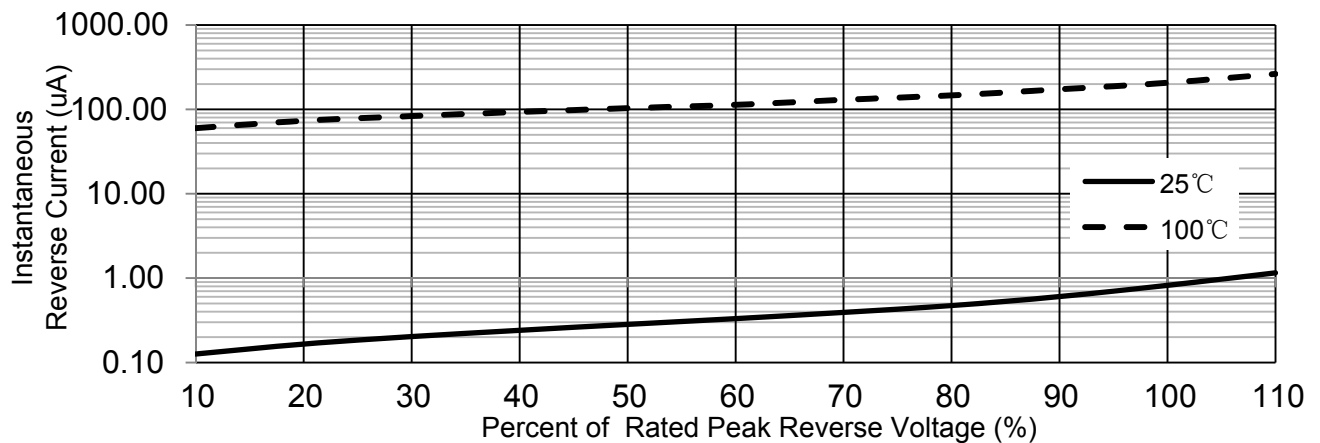
**Figure 1. Forward Current Derating Curve**



**Figure 2. Maximum Non-Repetitive Peak Forward Surge Current**



**Figure 3. Typical Instantaneous Forward Characteristics**

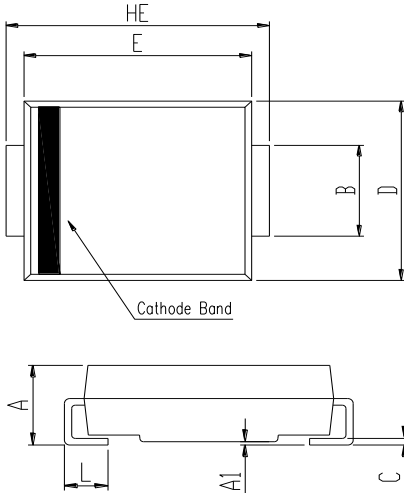


**Figure 4. Typical Reverse Characteristics**

# SK87 Thru SK8B

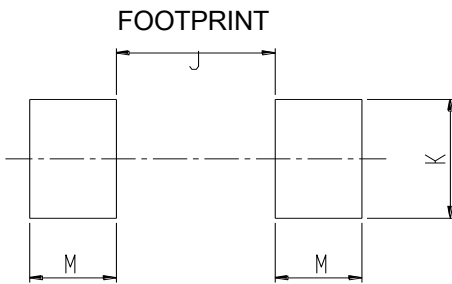
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## Package Outline Dimensions DO-214AB(SMC)

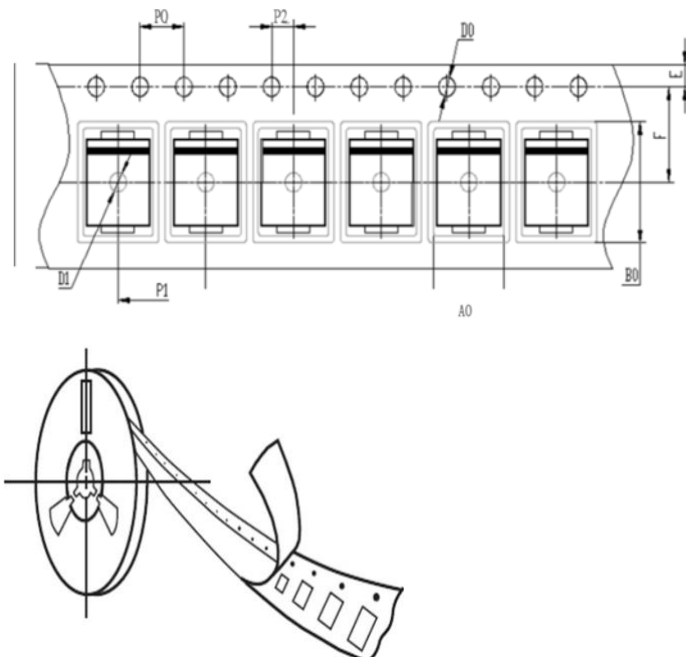


DIM	DO-214AB (SMC)			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.00	0.20	0.000	0.008
B	2.92	3.07	0.115	0.121
C	0.15	0.31	0.006	0.012
D	5.59	6.22	0.220	0.245
E	6.60	7.11	0.260	0.280
HE	7.75	8.13	0.305	0.320
L	0.76	1.52	0.030	0.060
J	-	4.60	-	0.181
K	3.20	-	0.126	-
M	2.00	-	0.079	-

Note: Footprint size for reference.



## Tape & Reel Specification



Symbol	SMC (mm)
W	16 ± 0.2
E	1.75 ± 0.1
F	7.5 ± 0.05
D0	1.5 ± 0.1
D1	1.50 + 0.1/-0
P0	4.0 + 0.1
P1	8.0 ± 0.1
P2	2.0 ± 0.05
A0	6.22 ± 0.1
B0	8.31 ± 0.1