

# SK82 THRU SK810

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

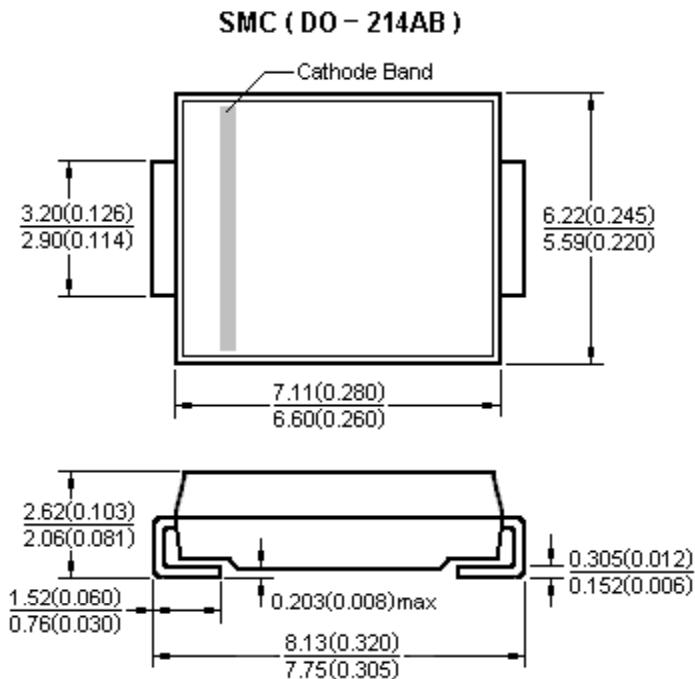
Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Amperes

### Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:  
260°C/10 seconds at terminals

### Mechanical Date

- **Case:** JEDEC DO-214AB molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



Dimensions in millimeters and (inches)

### Maximum Ratings & Thermal Characteristics

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Items	Symbol	SK82	SK83	SK84	SK85	SK86	SK88	SK810	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current	$I_{F(AV)}$	8.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	200							A
Voltage rate of change (rated $V_R$ )	dv/dt	10000							V/ $\mu$ s
Thermal resistance from junction to lead <sup>(1)</sup>	$R_{\theta JL}$	20							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +125							$^\circ\text{C}$

Note 1: Mounted on P.C.B. with  $0.55 \times 0.55$  (  $14 \times 14$  mm ) copper pad areas.

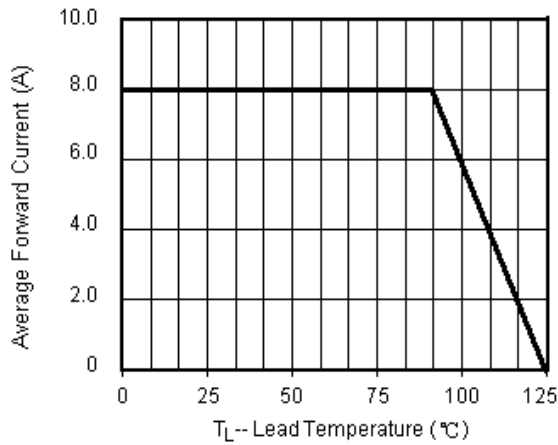
### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	SK82~83	SK84	SK85~86	SK88~810	UNIT	
Instantaneous forward voltage	$I_F=8.0\text{A}^{(2)}$	$V_F$	0.50	0.55	0.70	0.85	V	
Reverse current	$V_R=V_{DC}$	$I_R$	1				20	mA
			$T_A=25^\circ\text{C}$		10			
			$T_A=100^\circ\text{C}$					

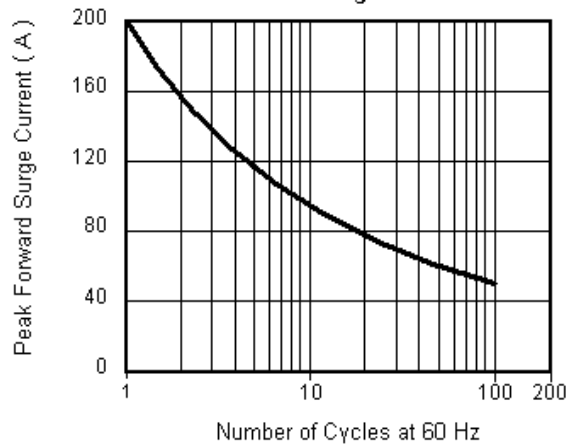
Note 2: Pulse test: 300 $\mu$ s pulse width, 1% duty cycle.

**Characteristic Curves** ( $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

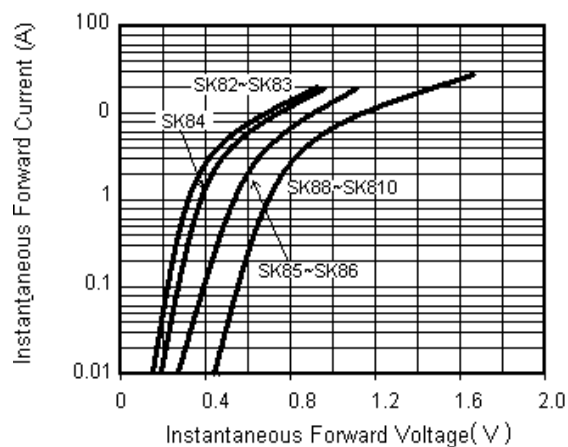
**Fig.1 Forward Current Derating Curve**



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



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Leakage Characteristics**

