

SK82 THRU SK810

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

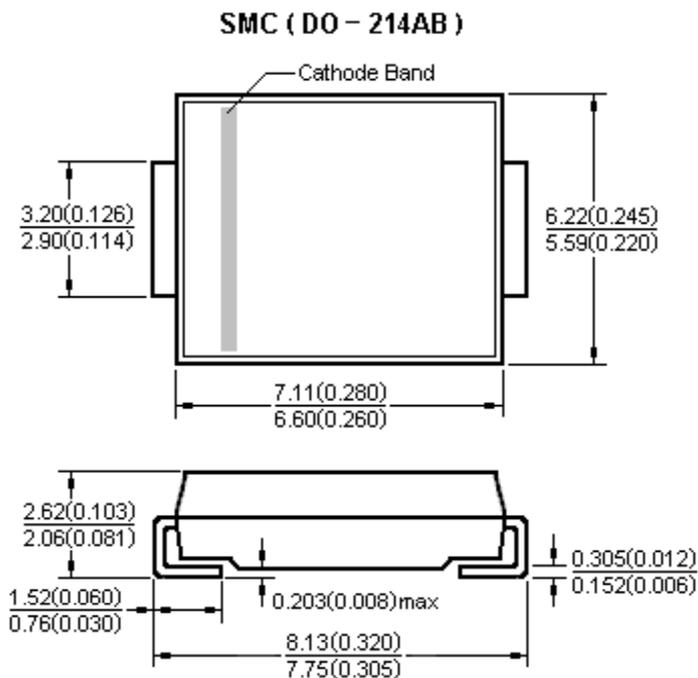
Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Amperes

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/ μ s
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	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 0.55×0.55 (14×14 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 μ s pulse width,1% duty cycle.

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

Fig.1 Forward Current Derating Curve

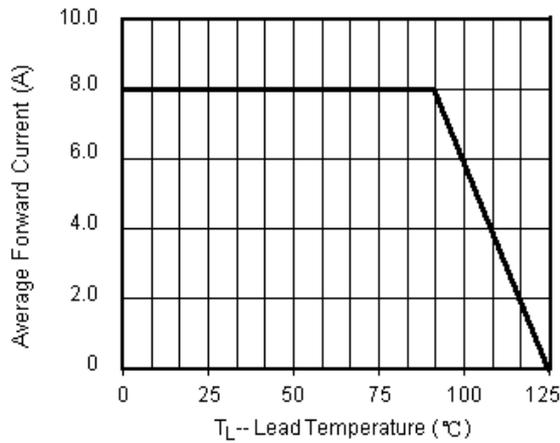


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

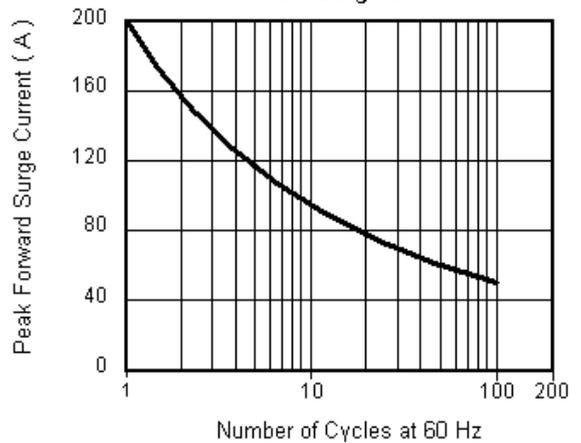


Fig.3 Typical Instantaneous Forward Characteristics

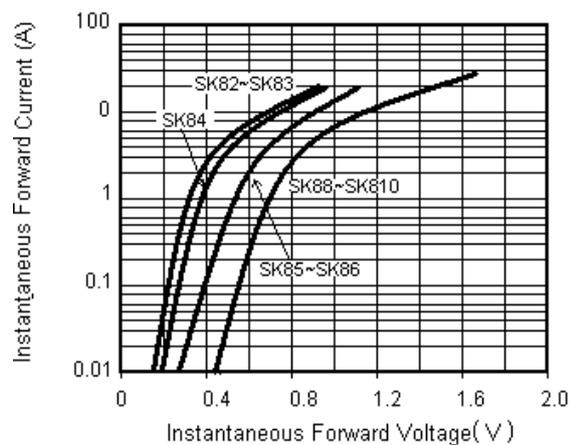


Fig.4 Typical Reverse Leakage Characteristics

