



# SK82 THRU SK810

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

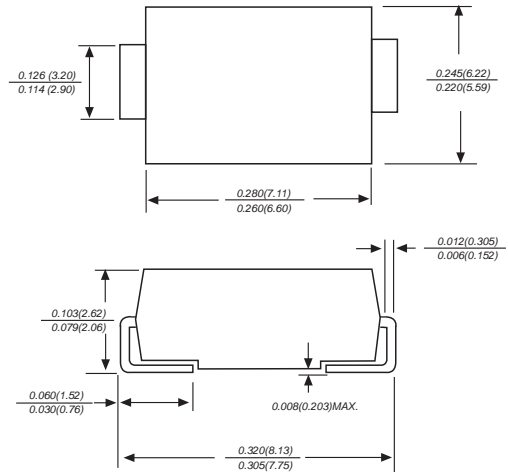
Reverse Voltage - 20 to 100 Volts

Forward Current - 8.0 Amperes

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications  
Low reverse leakage
- Built-in strain relief, ideal for automated placement  
High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds at terminals

### DO-214AB/SMC



Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case:** JEDEC DO-214AB molded plastic body  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.007 ounce, 0.25grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

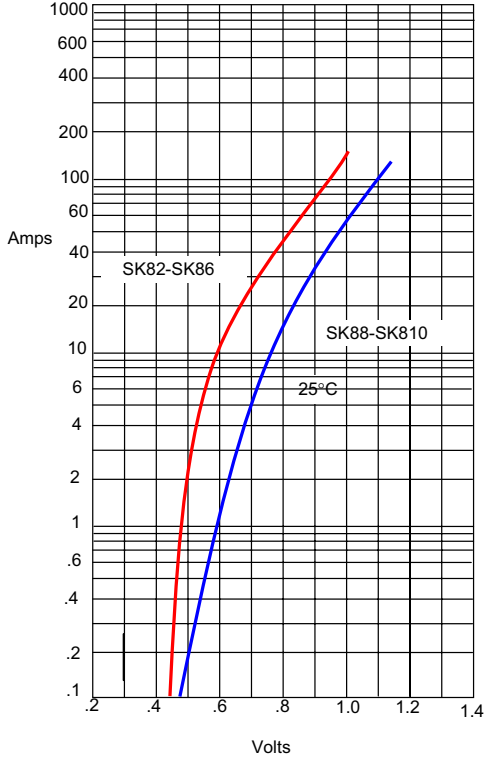
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	SK82	SK83	SK835	SK84	SK845	SK86	SK88	SK810	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	35	40	45	60	80	100	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	24.5	28	31.5	42	56	70	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	35	40	45	60	80	100	VOLTS
Maximum average forward rectified current at $T_L = 95^\circ\text{C}$	$I_{(AV)}$	8.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200.0								Amps
Maximum instantaneous forward voltage at 8.0A	$V_F$	0.65						0.85		Volts
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	$I_R$	1								mA
		20								
Typical junction capacitance (NOTE 1)	$C_J$	400								pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	18.0								°C/W
Operating junction temperature range	$T_J$	-50 to +150								°C
Storage temperature range	$T_{STG}$	-50 to +150								°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

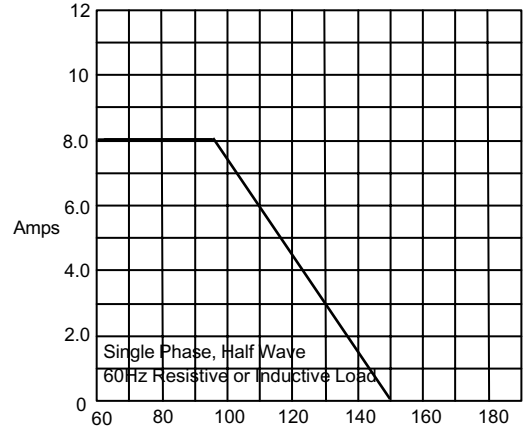


Figure 1  
Typical Forward Characteristics



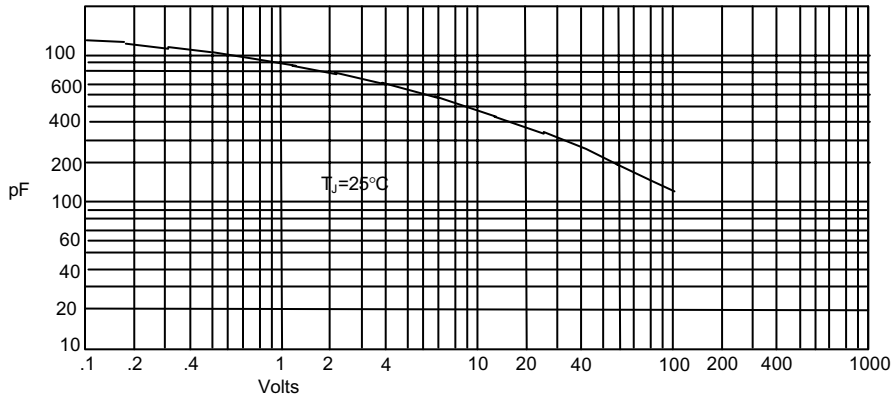
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Junction Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts



Figure 4  
Typical Reverse Characteristics

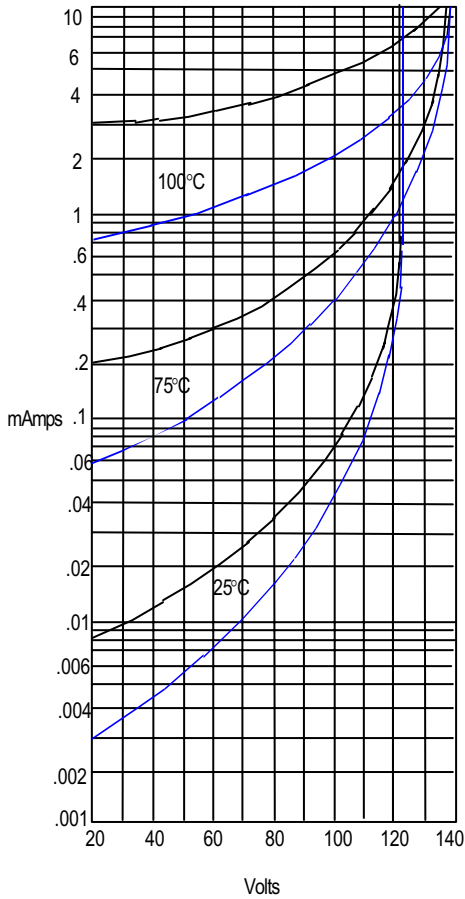
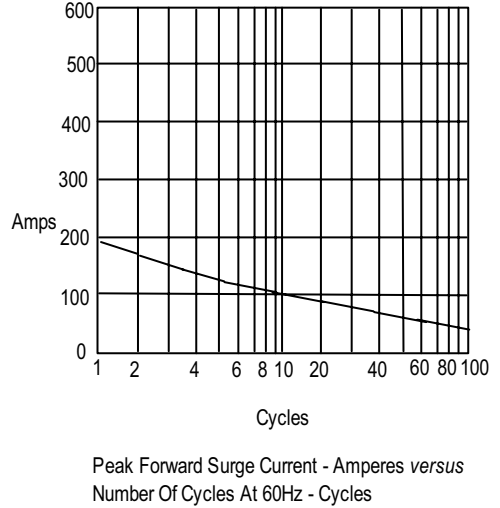


Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles