

# SK82 THRU SK810



## 8.0 AMP SCHOTTKY BARRIER RECTIFIERS

### FEATURES



- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.215 grams
- \* Lead Free Finish/RoHS Compliant

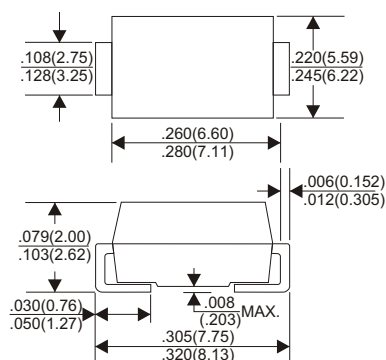
### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

8.0 Amperes

#### DO-214AB(SMC)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

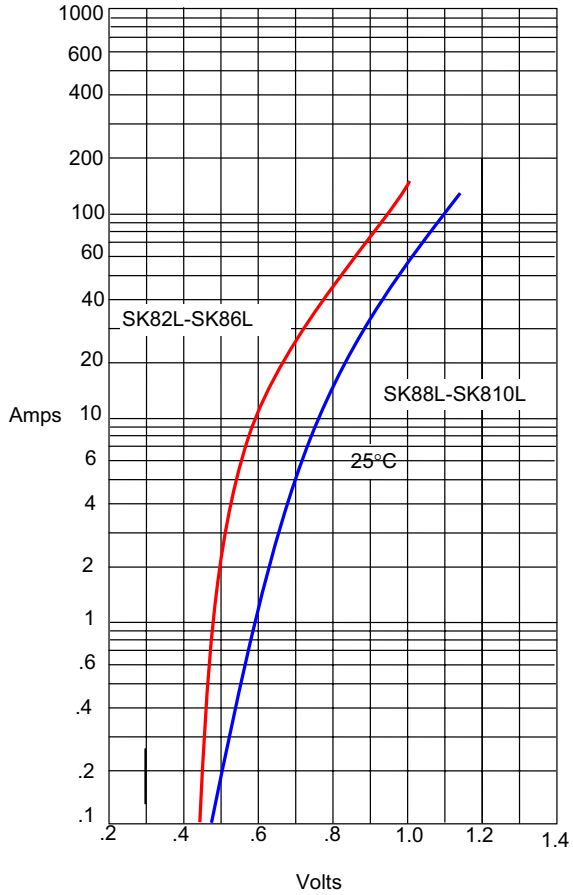
TYPE NUMBER	SK82	SK84	SK845	SK85	SK86	SK88	SK810	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	45	50	60	80	100	V
Maximum RMS Voltage	14	28	31	35	42	56	70	V
Maximum DC Blocking Voltage	20	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current	8.0							A
See Fig. 1								
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 8.0A	0.55		0.70		0.85			V
Maximum DC Reverse Current Ta=25°C	500							uA
at Rated DC Blocking Voltage Ta=100°C	50							mA
Typical Junction Capacitance (Note1)	380							pF
Typical Thermal Resistance RθJA (Note 2)	10							°C/W
Operating Temperature Range Tj	-65 — +125			-65 — +150				°C
Storage Temperature Range Tstg	-65 — +150							°C

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

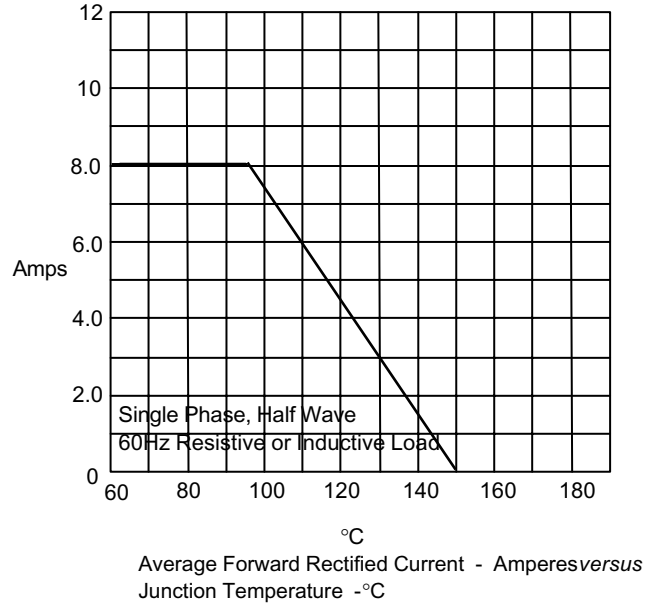
## RATING AND CHARACTERISTIC CURVES (SK82 THRU SK810)

Figure 1  
Typical Forward Characteristics



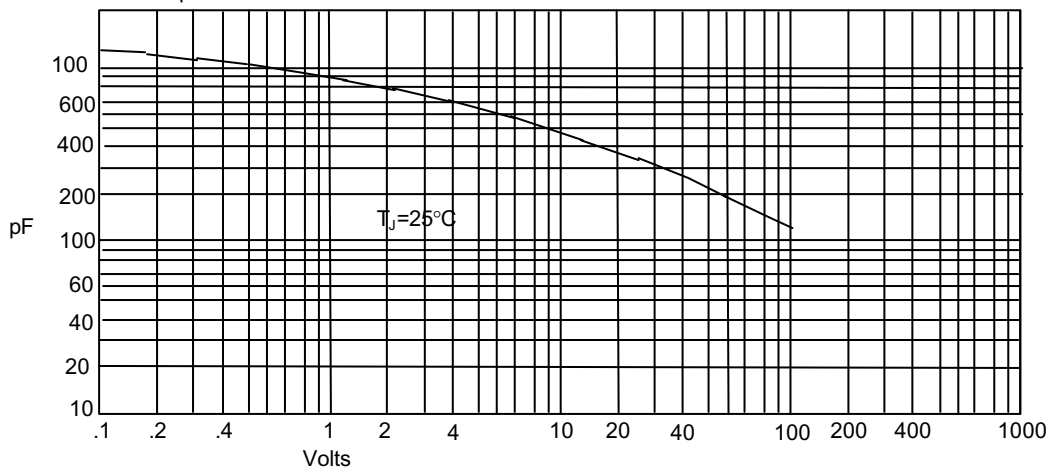
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



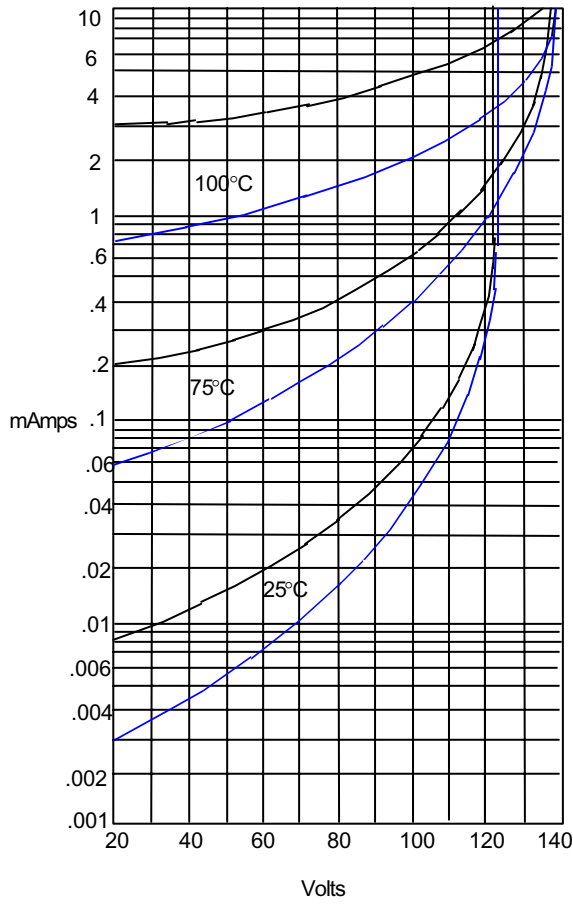
Average Forward Rectified Current - Amperes versus  
Junction Temperature - °C

Figure 3  
Junction Capacitance



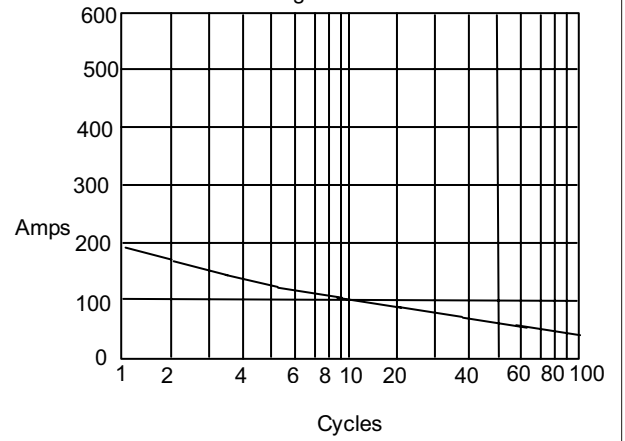
Junction Capacitance - pF versus  
Reverse Voltage - Volts

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



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

SK82L-845L	—
SK85L-810L	—