

CURRENT 8.0 Ampere
 VOLTAGE RANG 20 to 100 Volts

SK82C THRU SK810C

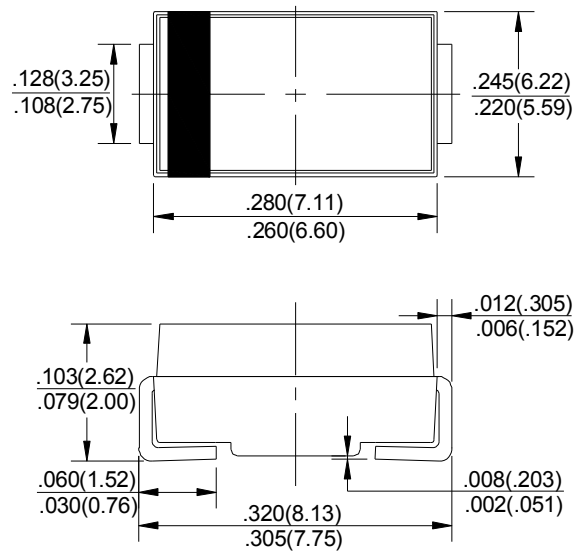
FEATURES

- ▶ 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

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

DO-214AB/SMC



Dimensions in inches and (millimeters)

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%.

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								$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-50 to +150								$^\circ\text{C}$
Storage temperature range	T_{STG}	-50 to +150								$^\circ\text{C}$

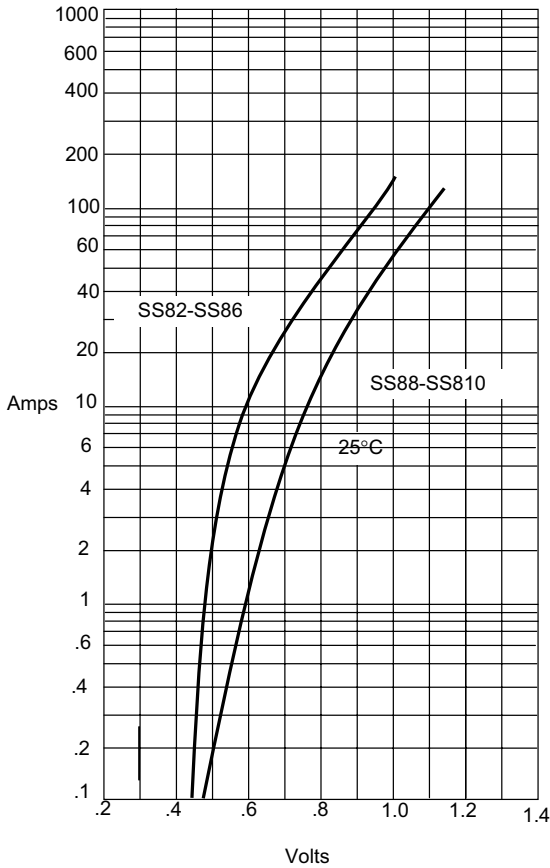
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

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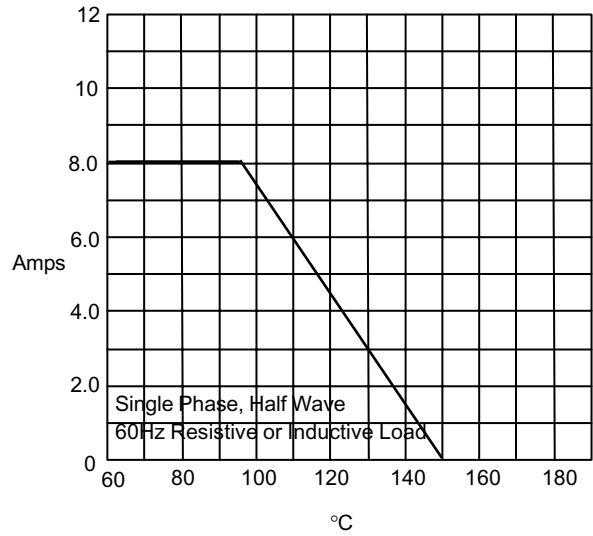
RATING AND CHARACTERISTIC CURVES SK82 Thru SK810

Figure 1
 Typical Forward Characteristics



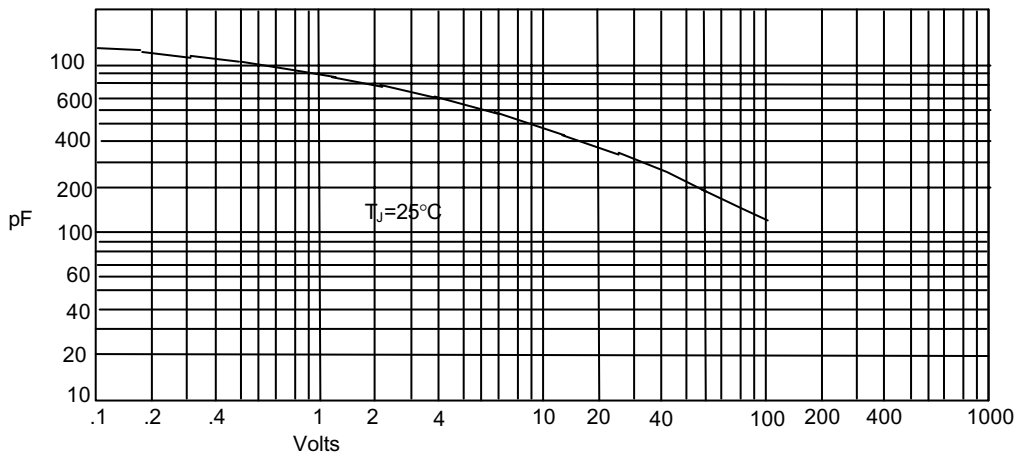
Instantaneous Forward Current - Amperes versus
 Instantaneous Forward Voltage - Volts

Figure 2
 Forward Derating Curve



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

Figure 3
 Junction Capacitance



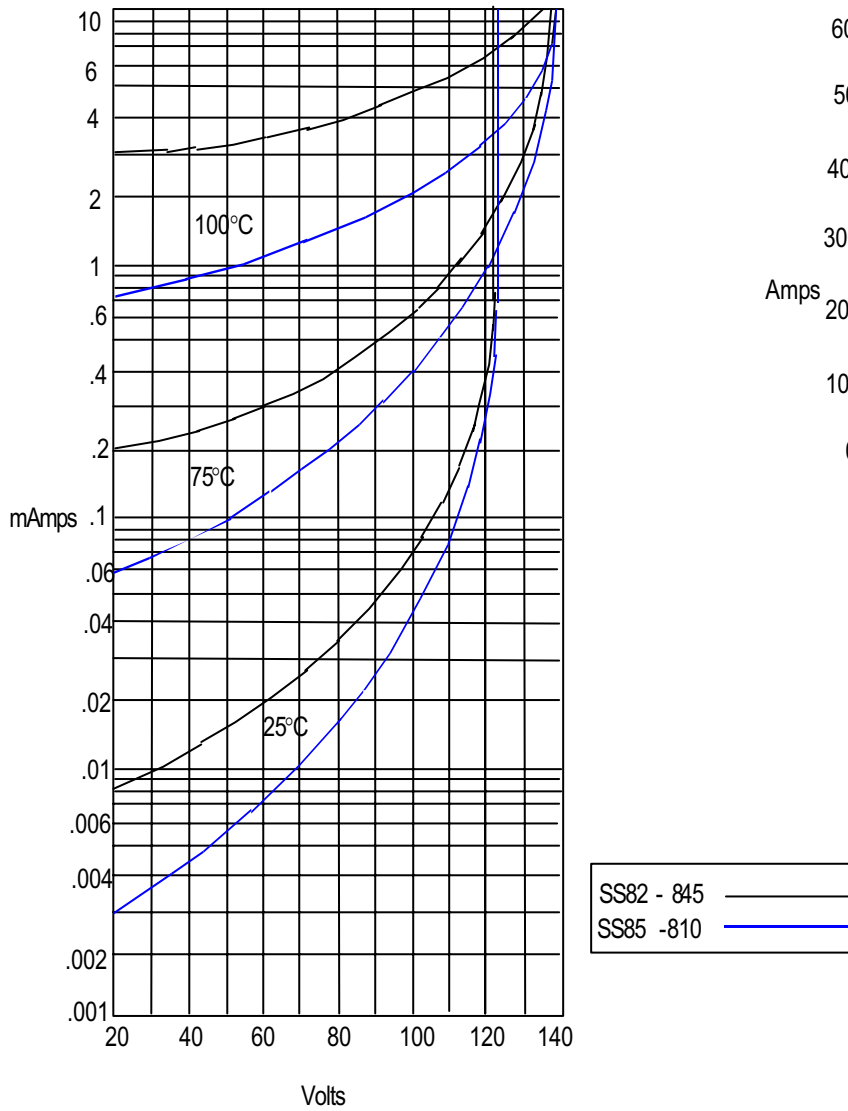
Junction Capacitance - pF versus
 Reverse Voltage - Volts

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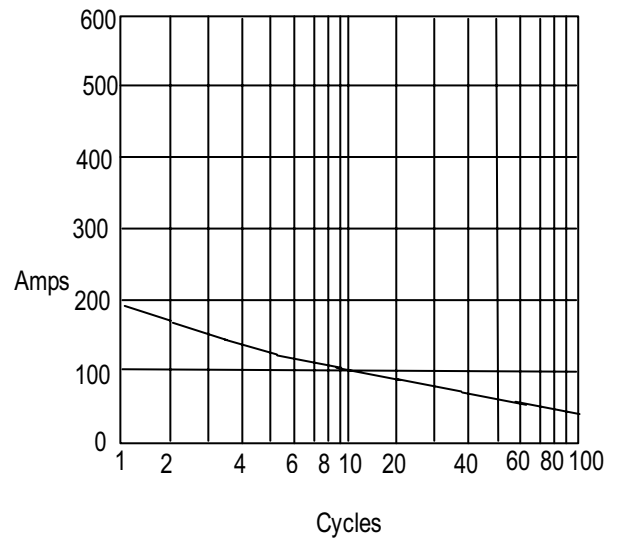
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Figure 4
 Typical Reverse Characteristics



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