

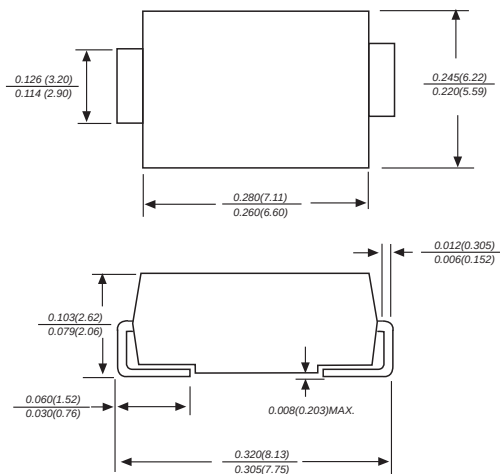


SK102 THRU SK1010

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 10.0 Amperes

DO-214AB/SMC



Dimensions in inches and (millimeters)

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

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%.

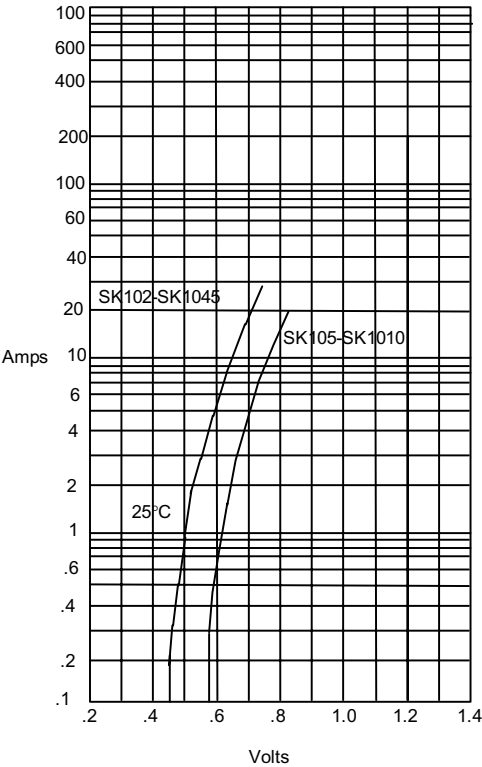
TWGMC Catalog Number	SYMBOLS	SK102	SK103	SK1035	SK104	SK1045	SK106	SK108	SK1010	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	35	40	45	60	80	100	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	24.5	28	31.5	42	56	70	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	35	40	45	60	80	100	VOLTS
Maximum average forward rectified current at T _L =95℃	I _(AV)	10.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	250.0								Amps
Maximum instantaneous forward voltage at 10.0A	V _F	0.65					0.85			Volts
Maximum DC reverse current T _A =25℃ at rated DC blocking voltage T _A =100℃	I _R	1								mA
		20								
Typical junction capacitance (NOTE 1)	C _J	500								pF
Typical thermal resistance (NOTE 2)	R _{θJA}	18.0								℃/W
Operating junction temperature range	T _J	-50 to +150								℃
Storage temperature range	T _{STG}	-50 to +150								℃

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

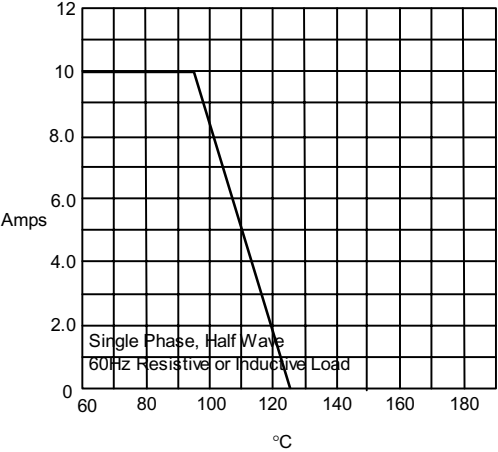
RATINGS AND CHARACTERISTIC CURVES SK102 THRU SK1010

Figure 1
Typical Forward Characteristics



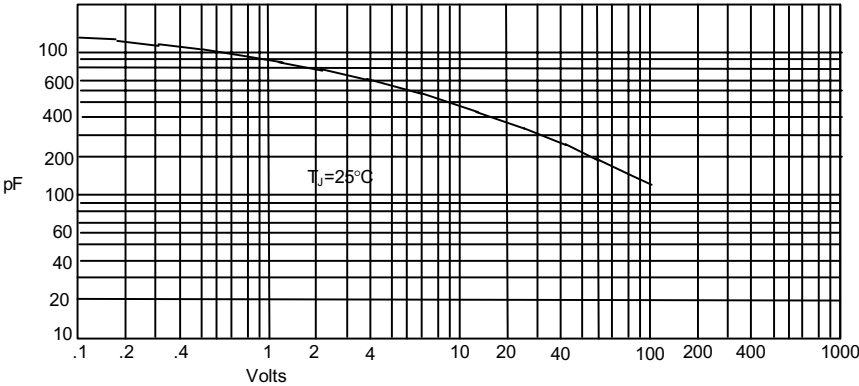
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes
versus Lead Temperature - C

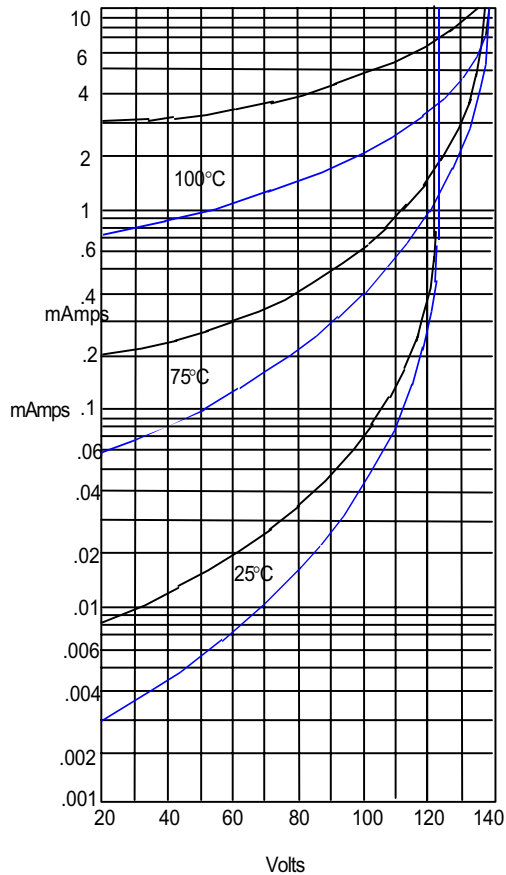
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

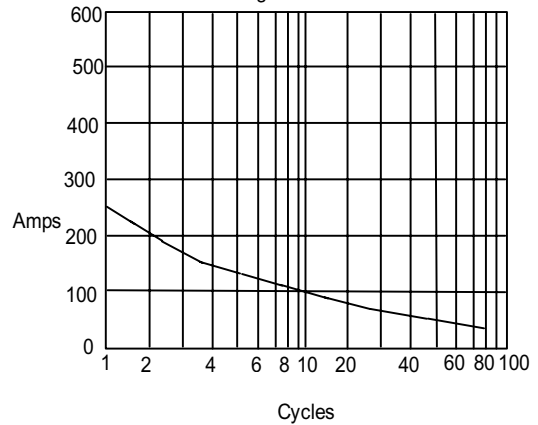
RATINGS AND CHARACTERISTIC CURVES SK102 THRU SK1010

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

SK102-SK1045 ———
SK105-SK1010 ———