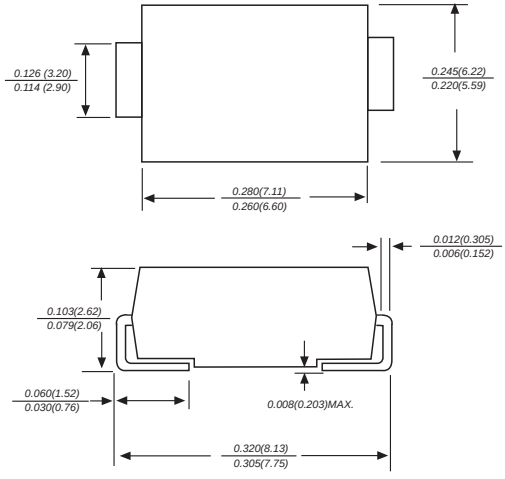
SK102 THRU SK1010

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℃/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

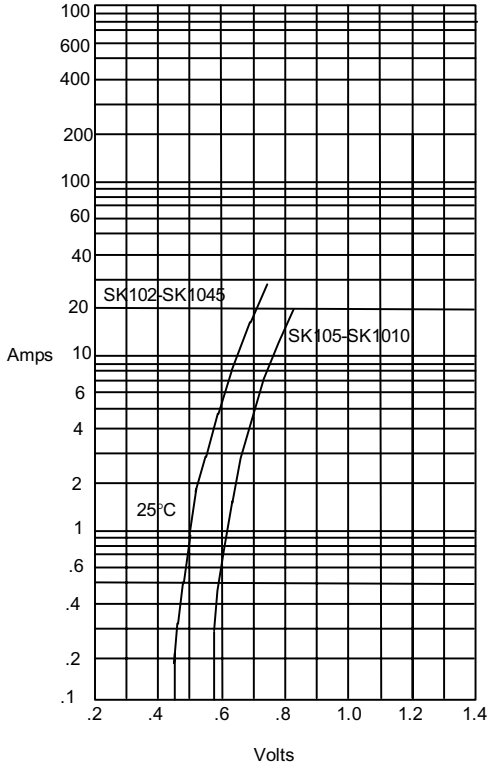
Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

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℃	I_R	1								mA
at rated DC blocking voltage T_A=100℃	I_R	20								mA
Typical junction capacitance (NOTE 1)	C_J	500								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

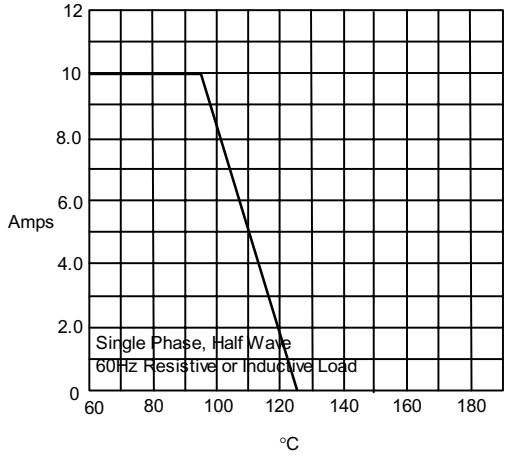
RATINGS AND CHARACTERISTIC CURVES SK102 THRU SK1010

Figure 1
Typical Forward Characteristics



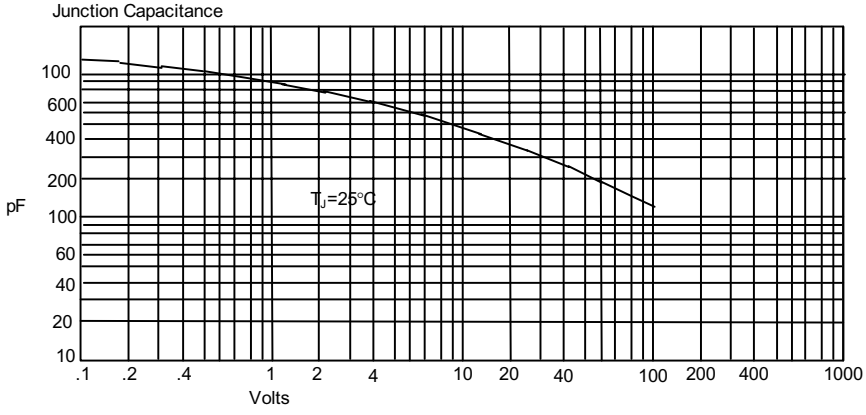
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



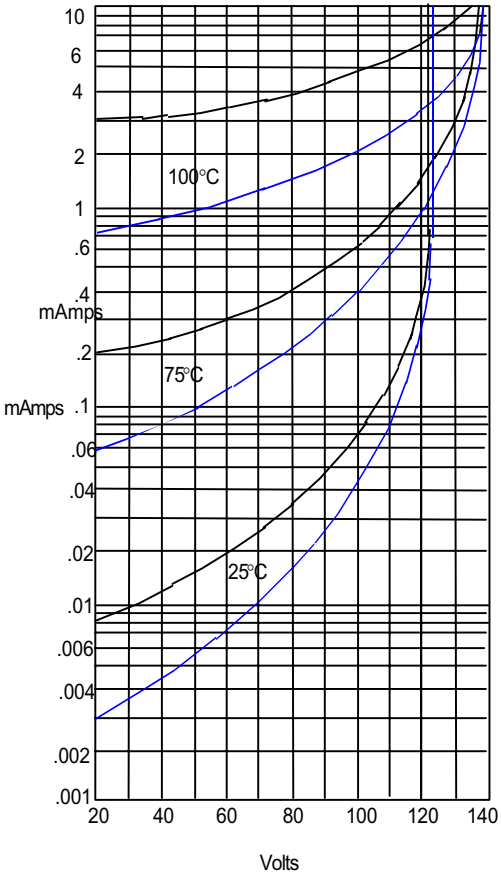
Average Forward Rectified Current - Amperes
versus Lead Temperature - C

Figure 3
Junction Capacitance



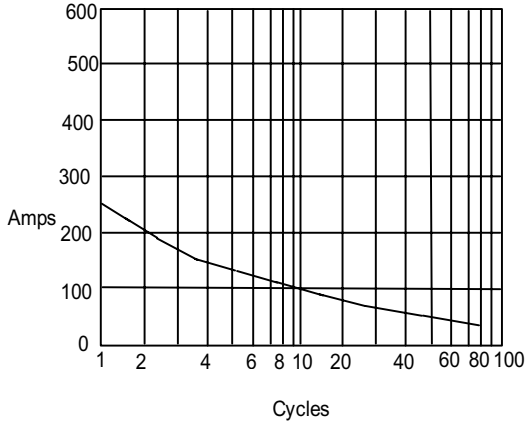
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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