

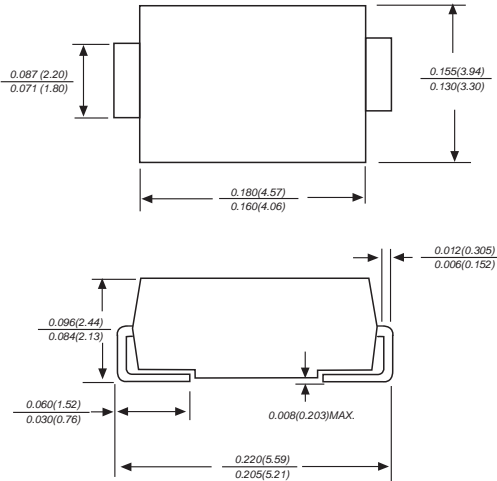


# SK102 THRU SK1010

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

### DO-214AA/SMB



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-214AA molded plastic body  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight :** 0.003 ounce, 0.093 grams

## 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	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 $T_L = 95^\circ C$	$I_{(AV)}$	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 $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	$I_R$	1 20								mA
Typical junction capacitance (NOTE 1)	$C_J$	500								pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	18.0								$^\circ C/W$
Operating junction temperature range	$T_J$	-50 to +150								$^\circ C$
Storage temperature range	$T_{STG}$	-50 to +150								$^\circ C$

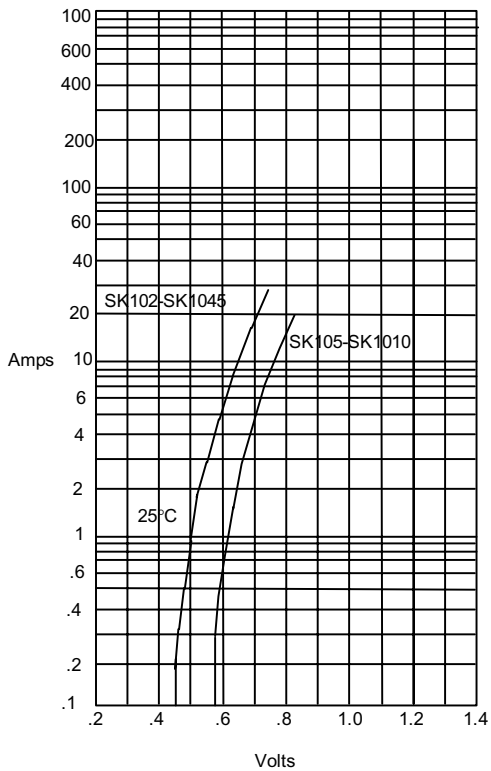
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



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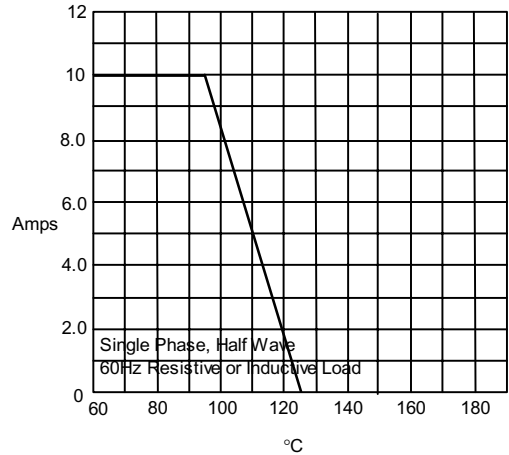
# RATINGS AND CHARACTERISTIC CURVES SK102 THRU SK1010

Figure 1  
Typical Forward Characteristics



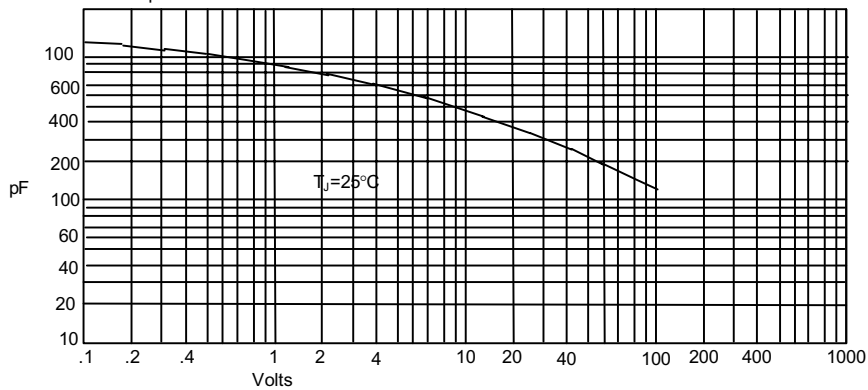
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes  
versus Lead Temperature - C

Figure 3  
Junction Capacitance



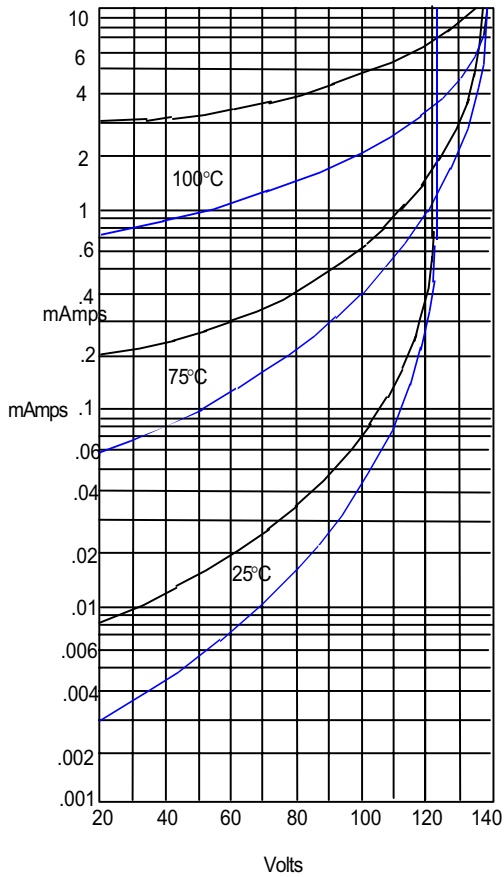
Junction Capacitance - pF versus  
Reverse Voltage - Volts

The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



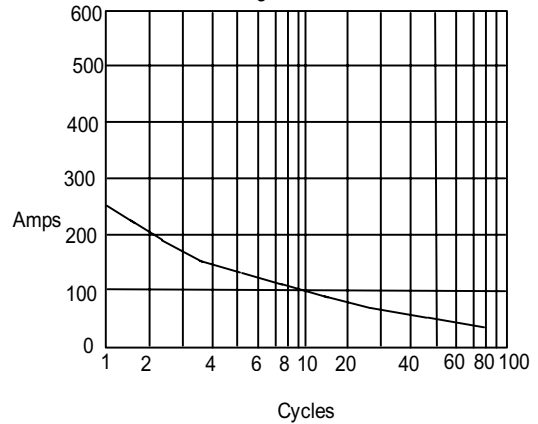
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Figure 4  
Typical Reverse Characteristics



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

SK102-SK1045 ———  
SK105-SK1010 ———

The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

