



# DATA SHEET

## SK12~S110

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

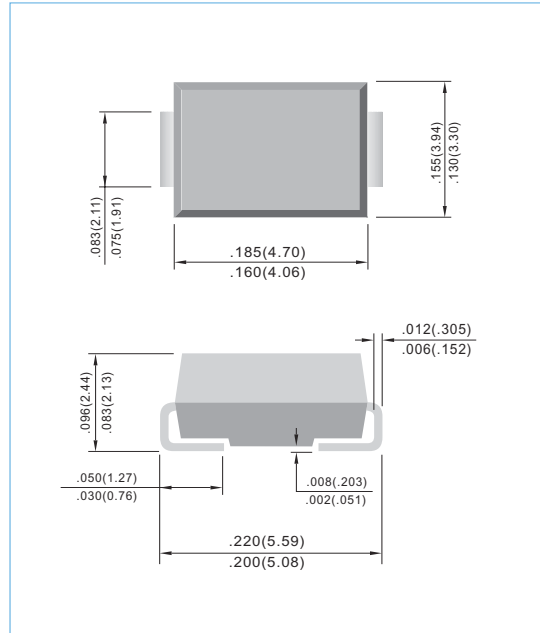
**VOLTAGE** 20 to 100 Volts **CURRENT** 1.0 Ampere

**SMB/DO-214AA**

Unit: inch (mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- High current capacity ,low  $V_F$
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request



#### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic  
 Terminals:Solder plated, solderable per MIL-STD-202G, Method 208  
 Polarity: Color band denotes positive end (cathode)  
 Standard packaging: 12mm tape (EIA-481)  
 Weight: 0.003 ounce, 0.093 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

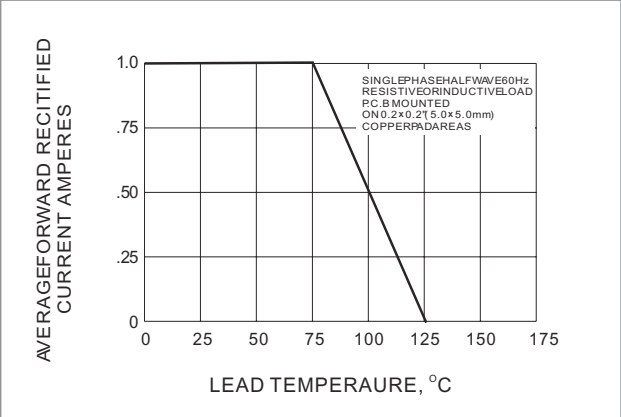
PARAMETER	SYMBOL	SK12	SK13	SK14	SK15	SK16	SK18	SK19	S110	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_L=75^\circ C$	$I_{AV}$	1.0								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30								A
Maximum Forward Voltage at 1.0A ( Note 1)	$V_F$	0.5		0.7		0.85			V	
Maximum DC Reverse Current $T_A=25^\circ C$ at Rated DC Blocking Voltage $T_A=100^\circ C$	$I_R$					0.5				mA
Maximum Thermal Resistance ( Note 2)	$R_{\theta JL}$					30				$^\circ C / W$
	$R_{\theta JA}$					95				
Operating Junction Temperature Range	$T_J$					-50 to +125				$^\circ C$
Storage Temperature Range	$T_{STG}$					-50 to +150				$^\circ C$

**NOTES:**

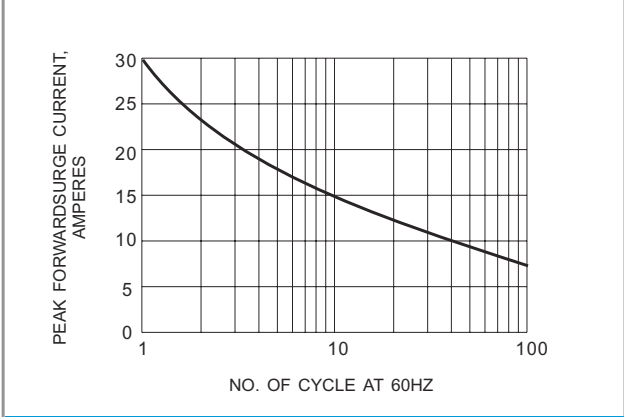
- A.Pulse Test with  $PW = 300\mu sec$ , 1% Duty Cycle.
- B.Mounted on P.C. Board with  $5.0mm^2$  (.013mm thick) copper pad areas.



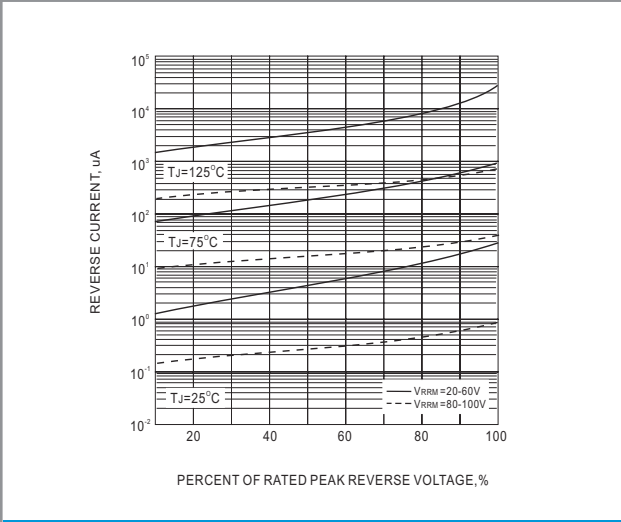
**RATING AND CHARACTERISTIC CURVES**



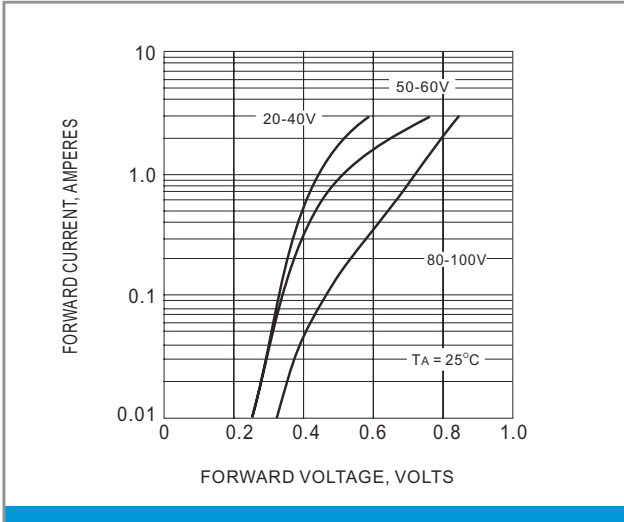
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**