

# SB22 THRU SB210

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 to 100V

CURRENT: 2.0A

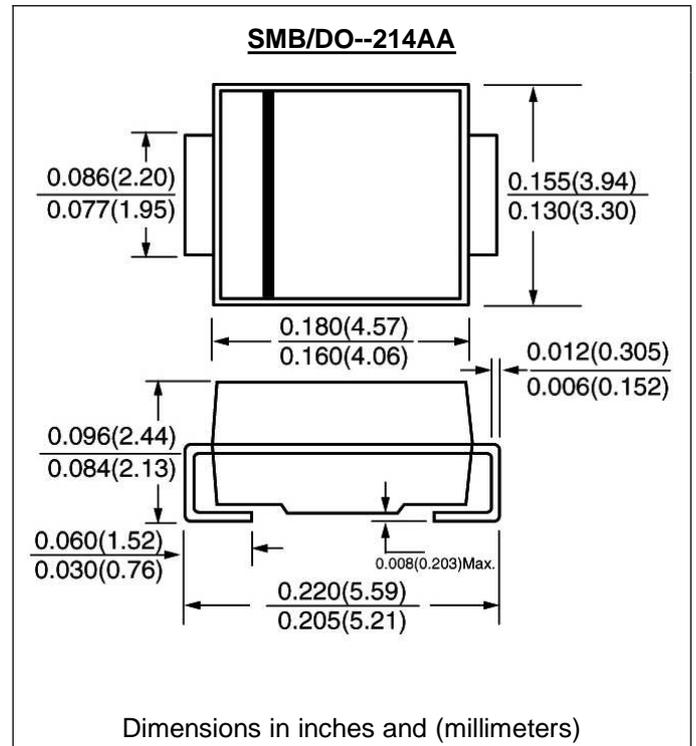


### FEATURE

Plastic package has Underwriters Laboratory Flammability Classification 94V-0  
 For surface mounted applications  
 Low profile package  
 Built-in strain relief  
 Low power loss, high efficiency  
 High current capability, low forward voltage drop  
 High surge capability  
 For use in low voltage high frequency inverters, free wheeling, and polarity protection applications  
 Guard ring for over voltage protection  
 High temperature soldering guaranteed: 250°C /10 seconds at terminals

### MECHANICAL DATA

Case: JEDEC SMB/DO-214AA molded plastic body  
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end  
 Weight: 0.003 ounce, 0.093 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

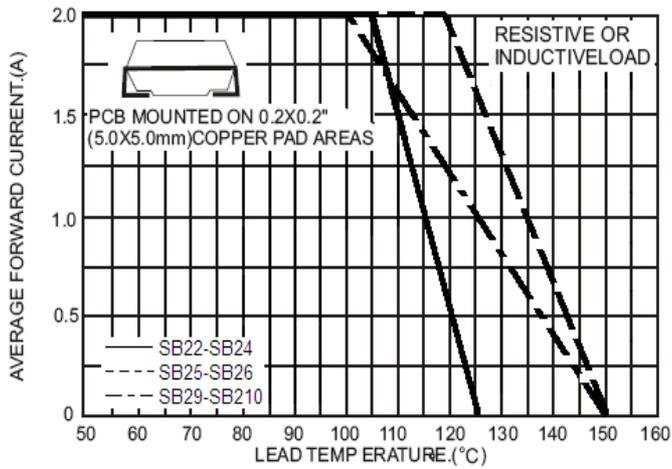
	SYMBOL	SB2 2	SB2 3	SB2 4	SB2 5	SB2 6	SB2 9	SB2 10	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	20	30	40	50	60	90	100	V
Maximum RMS Voltage	V <sub>rms</sub>	14	21	28	35	42	63	70	V
Maximum DC blocking Voltage	V <sub>dc</sub>	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current 3/8"lead length	I <sub>f(av)</sub>	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	50.0							A
Maximum Forward Voltage at rated Forward current (Note 1)	V <sub>f</sub>	0.50		0.70		0.79		V	
Maximum DC Reverse Current at rated DC blocking voltage Ta =25°C Ta =100°C	I <sub>r</sub>	0.5							mA
		20.0			10.0				
Typical Thermal Resistance (Note 2)	R <sub>th(ja)</sub>	88.0							°C/W
	R <sub>th(jc)</sub>	50.0							
Operating junction Temperature range	T <sub>j</sub>	-55 to +125			-55 to +150				°C
Storage Temperature range	T <sub>stg</sub>	-55 to +150							°C

Note:

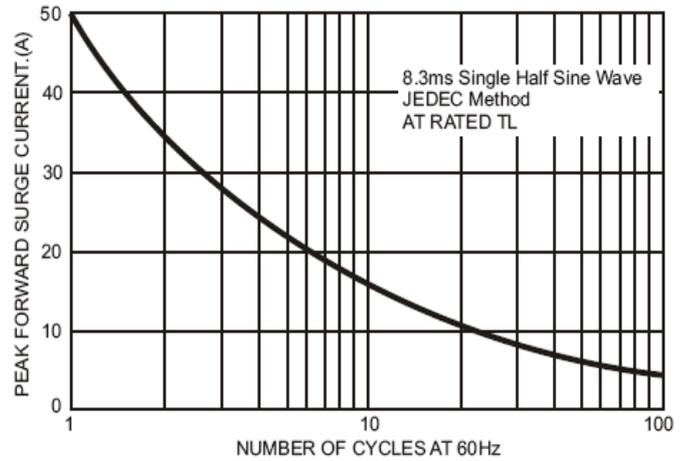
- (1) Pulse test: 300μs pulse width, 1% duty cycle
- (2) P.C.B. mounted with 0.2 x 0.2inches(5.0 x 5.0mm) copper pad areas

## RATINGS AND CHARACTERISTIC CURVES SB22 THRU SB210

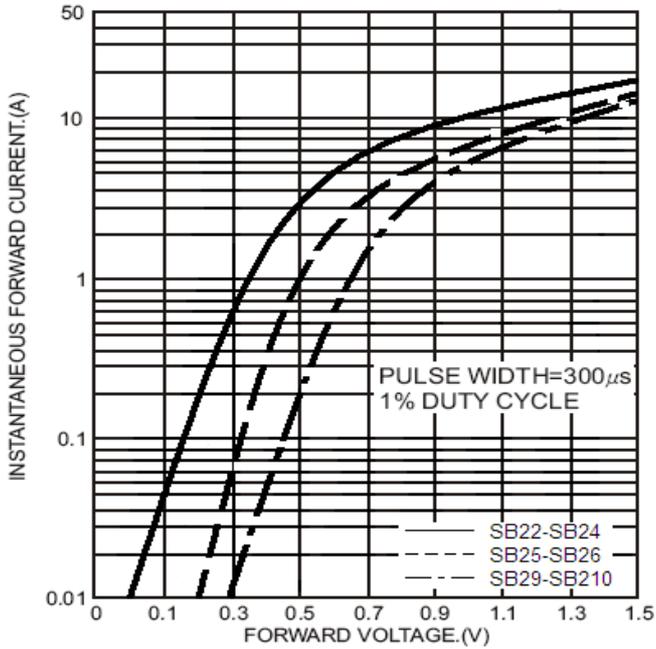
**FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE**



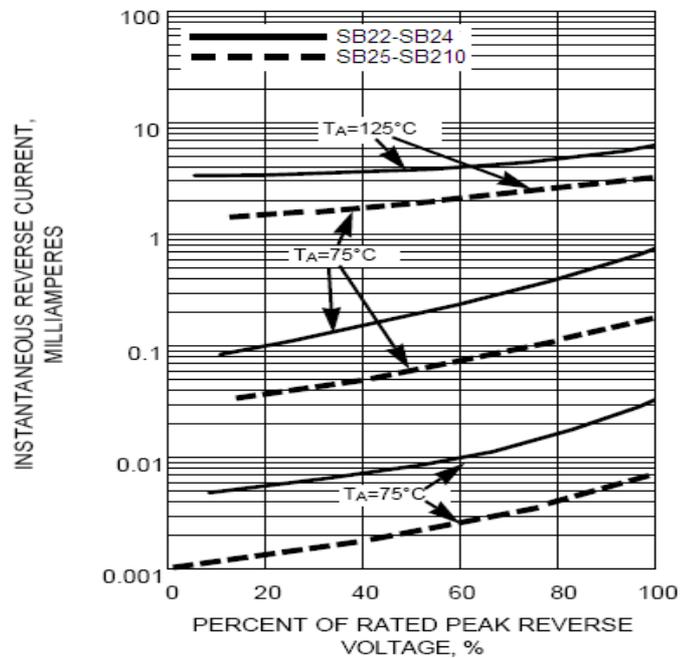
**FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 3- TYPICAL FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CURRENT CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

