SB22 THRU SB210

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 to 100V **CURRENT: 2.0A**

GULF SEMI

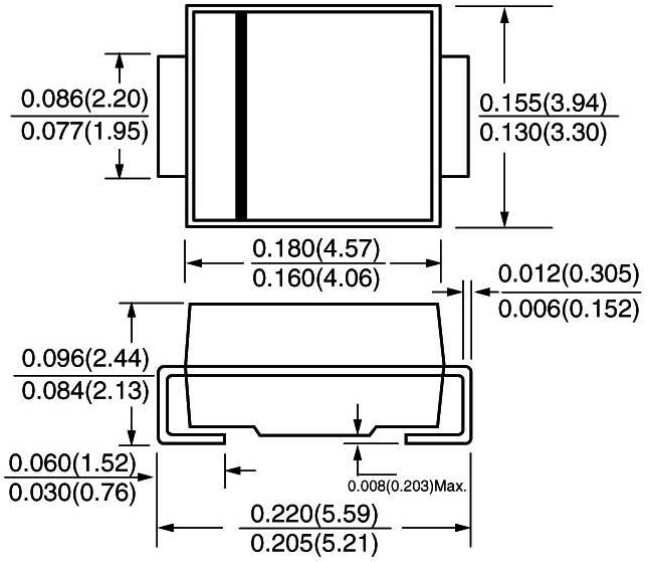
FEATURE

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: 250ºC /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

SMB/DO--214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SB22	SB23	SB24	SB25	SB26	SB29	SB210	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	20	30	40	50	60	90	100	V
Maximum RMS Voltage	Vrms	14	21	28	35	42	63	70	V
Maximum DC blocking Voltage	Vdc	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current 3/8"lead length	If(av)	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	50.0							A
Maximum Forward Voltage at rated Forward current (Note 1)	Vf	0.50			0.70		0.79		V
Maximum DC Reverse Current Ta =25ºC	Ir	0.5							mA
at rated DC blocking voltage Ta =100ºC		20.0			10.0				
Typical Thermal Resistance (Note 2)	Rth(ja)	88.0							ºC/W
	Rth(jc)	50.0							
Operating junction Temperature range	Tj	-55 to +125			-55 to +150				ºC
Storage Temperature range	Tstg	-55 to +150							ºC

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

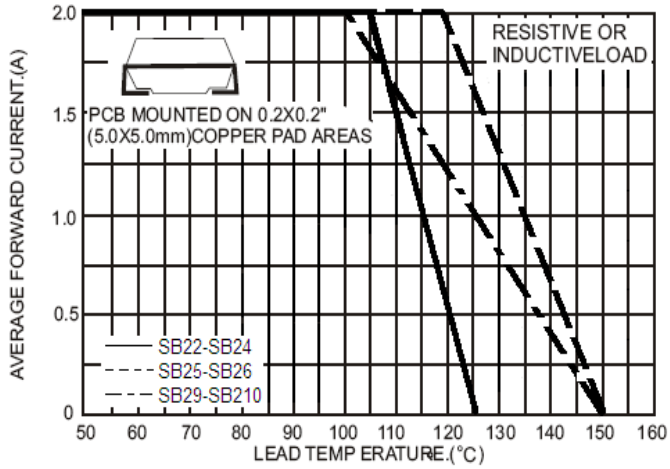


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

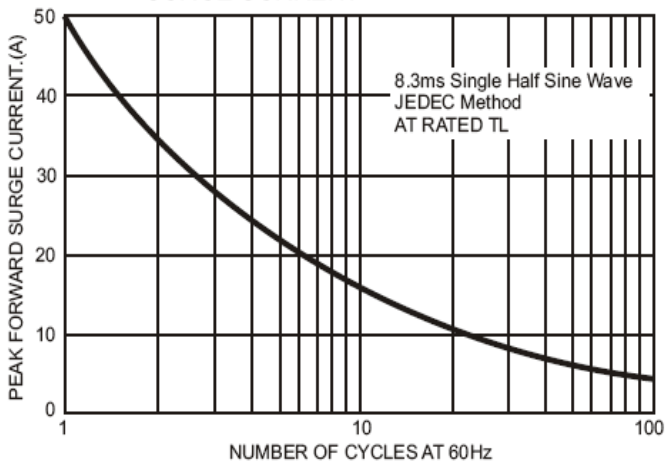


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

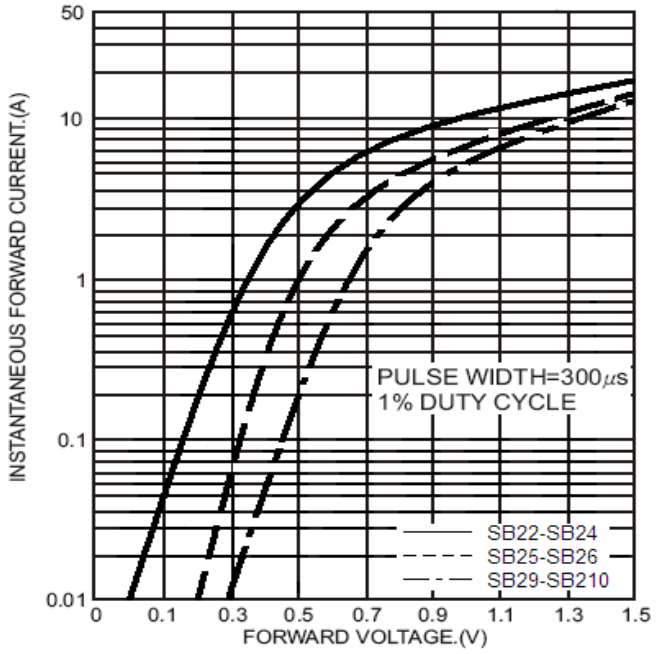


FIG. 4 - TYPICAL REVERSE CURRENT CHARACTERISTICS

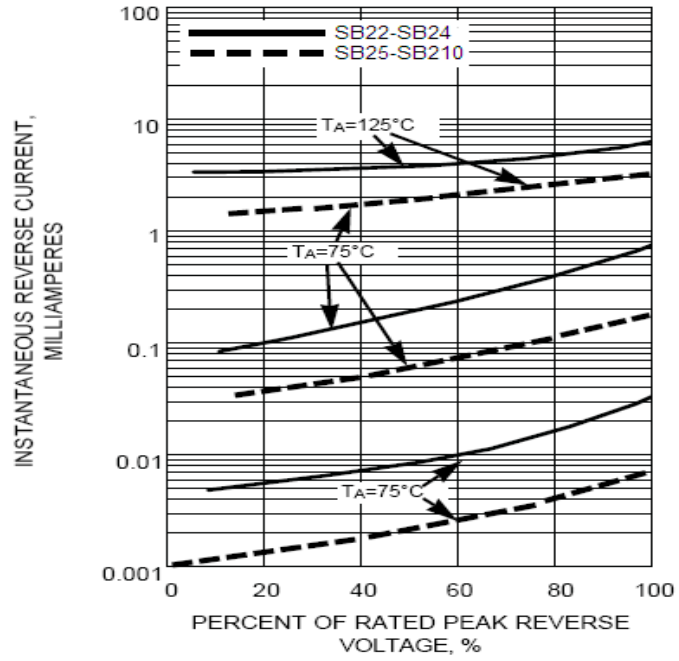


FIG. 5 - TYPICAL JUNCTION CAPACITANCE