

SB43-B THRU SB44-B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE:30 TO 40V

CURRENT: 4.0A



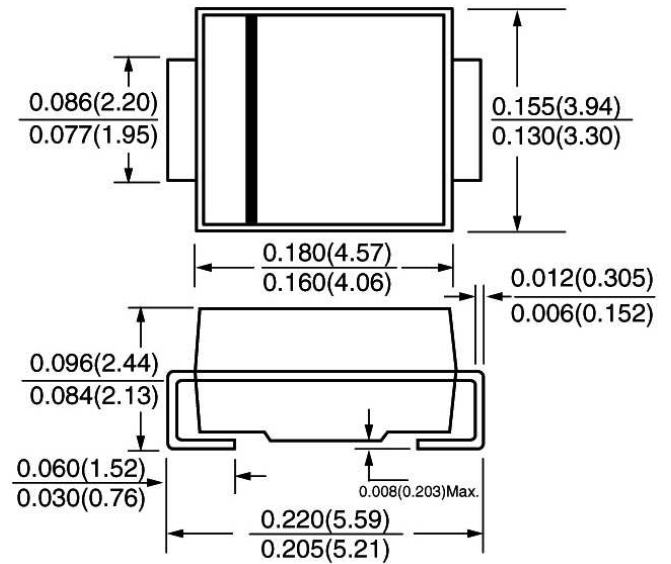
FEATURE

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
 Guarding for over voltage protection

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 High temperature soldering guaranteed:
 250°C /10 seconds at terminals
Polarity: Color band denotes cathode end
Weight: 0.003 ounce, 0.093gram

SMB/DO--214AA



Dimensions in inches and (millimeters)

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	SB43-B	SB44-B	units
Device marking code		SB43	SB44	
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	30	40	V
Maximum RMS Voltage	V _{rms}	21	28	V
Maximum DC blocking Voltage	V _{dc}	30	40	V
Maximum Average Forward Rectified Current 3/8'lead length at T _L (See Fig.1)	I _{f(av)}	4.0		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	100.0		A
Maximum Forward Voltage at rated Forward current at 4.0A T _J =25°C (Note 1)	V _f	0.50		V
Maximum DC Reverse Current T _J =25°C at rated DC blocking voltage T _J =125°C	I _r	0.6	0.5	mA
		45	40	
Typical Thermal Resistance (Note 2)	R(ja)	70.0		°C /W
	R(jl)	23.0		
Storage and Operating Temperature Range	T _{stg}	-50 to +150		°C

NOTES:

- (1) Pulse test: 300µs pulse width, 1% duty cycle
- (2) Aluminum substrate mounted

Fig. 1 – Forward Current Derating Curve

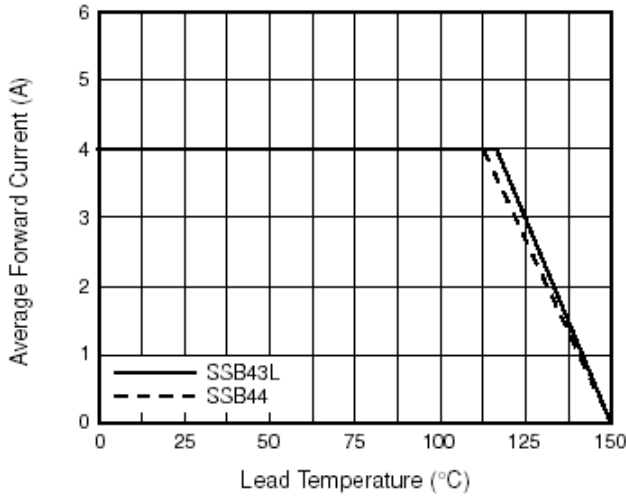


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

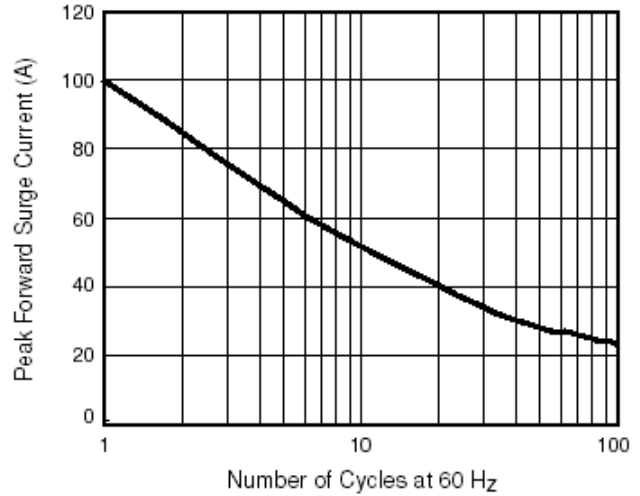


Fig. 3 – Typical Instantaneous Forward Characteristics

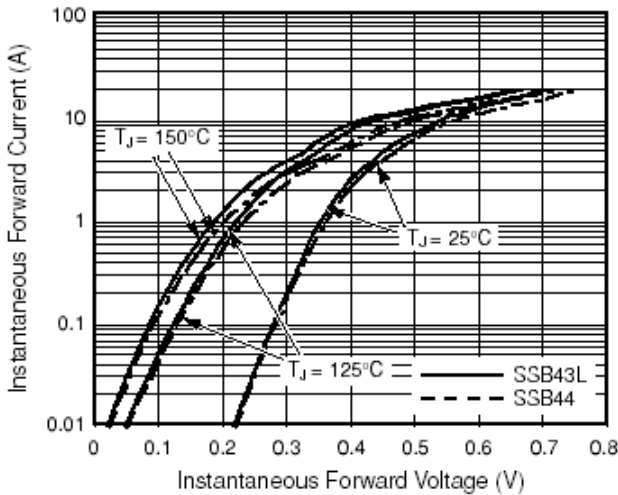


Fig. 4 – Typical Reverse Characteristics

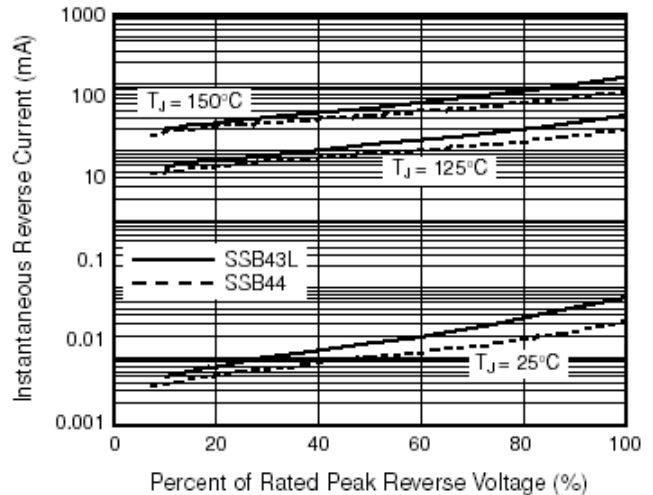


Fig. 5 – Typical Junction Capacitance

