



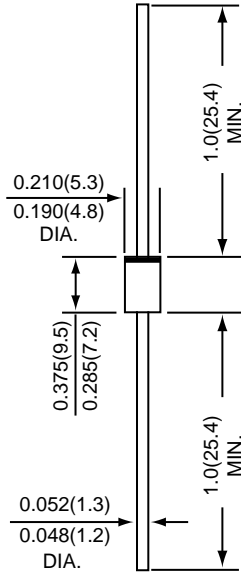
# SB320H THRU SB3100H

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 3.0 Amperes

**DO-201AD**



\*Dimensions in inches and (millimeters)



### FEATURES

- \* Halogen-free type
- \* Compliance to RoHS product
- \* Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- \* Guardring for overvoltage protection
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* High temperature soldering guaranteed :  
260°C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case :** JEDEC DO-201AD Molded plastic body  
**Terminals :** Tin Plated, solderable per MIL-STD-750, Method 2026  
**Polarity :** Color band denotes cathode end  
**Mounting Position :** Any  
**Weight :** 0.04 ounce, 1.12 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	SB320H	SB340H	SB360H	SB3100H	UNITS
Maximum repetitive peak reverse voltage	VRRM	20	40	60	100	Volts
Maximum RMS voltage	VRMS	14	28	42	70	Volts
Maximum DC blocking voltage	VDC	20	40	60	100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I(AV)	3.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80				Amps
Maximum instantaneous forward voltage at 3.0 A ( NOTE 1 )	VF	0.5	0.70	0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage TA=25°C TA=100°C	IR	0.5				mA
		20	10			
Typical thermal resistance ( NOTE 2 )	R θJA	40				°C / W
	R θJL	10				
Operating junction temperature range	TJ	-65 to +125		-65 to +150		°C
Storage temperature range	TSTG	-65 to +150				°C

NOTES : (1) Pulse test 300us pulse width, 1% duty cycle  
 (2) Thermal resistance from junction to lead vertical P.C.B. mounting 0.50" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad

# RATINGS AND CHARACTERISTIC CURVES SB320H THRU SB3100H

FIG. 1 - FORWARD CURRENT DERATING CURVE

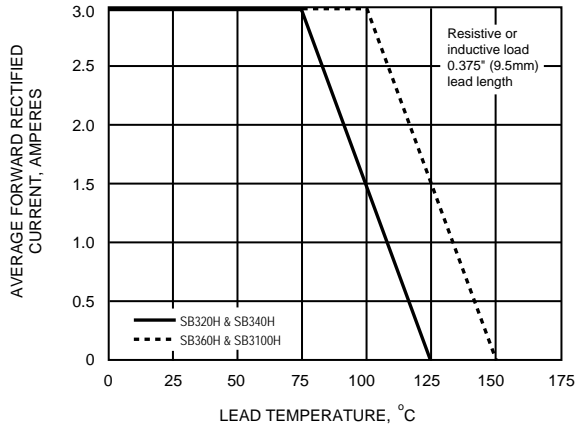


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

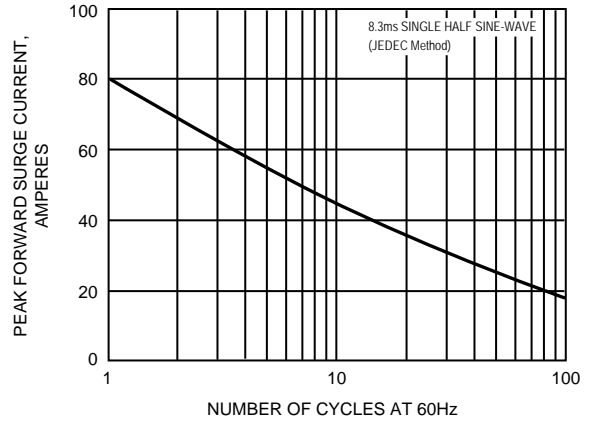


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

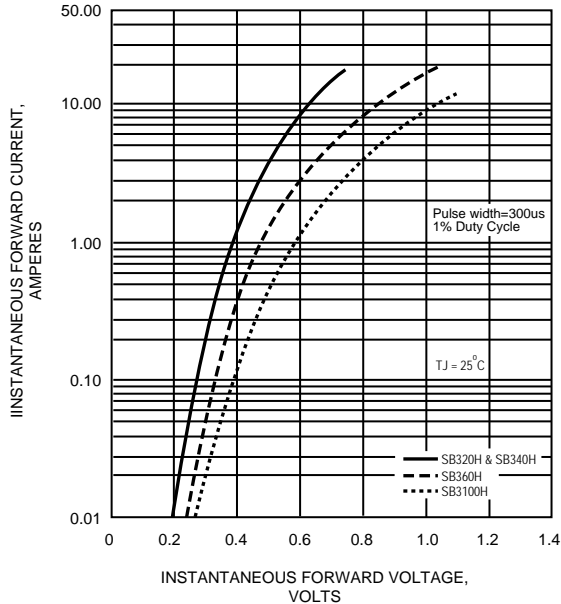


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

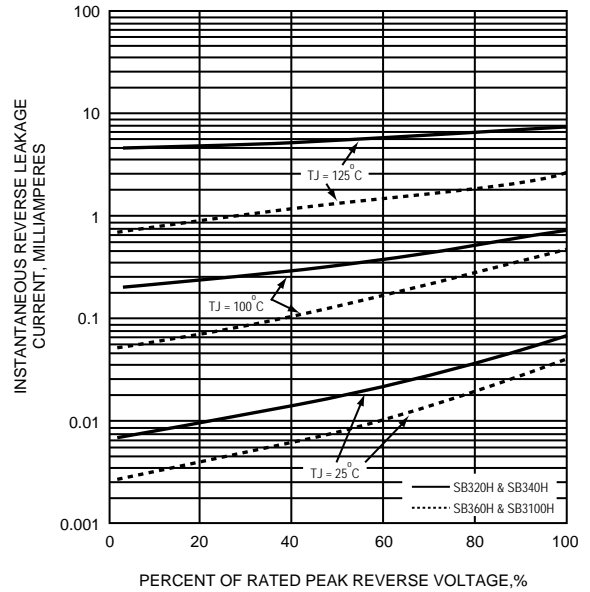


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

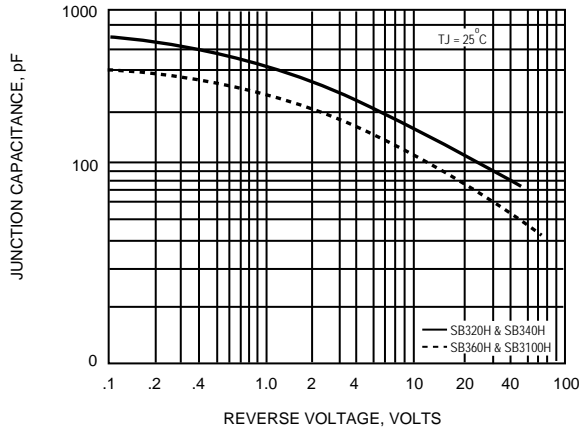


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

