



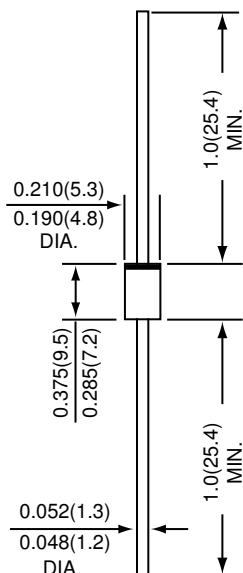
SB320 THRU SB3100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 3.0 Amperes

DO-201AD



*Dimensions in inches and (millimeters)



FEATURES

- * Compliance to RoHS product
- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- * Metal silicon junction, majority carrier conduction
- * Guardring for overvoltage protection
- * Low forward voltage drop
- * High current capability, High surge capability
- * 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

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	SB320	SB340	SB360	SB3100	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 θ JA	40				°C / W
	R θ JL	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 SB320 THRU SB3100

FIG.1 - FORWARD CURRENT DERATING CURVE

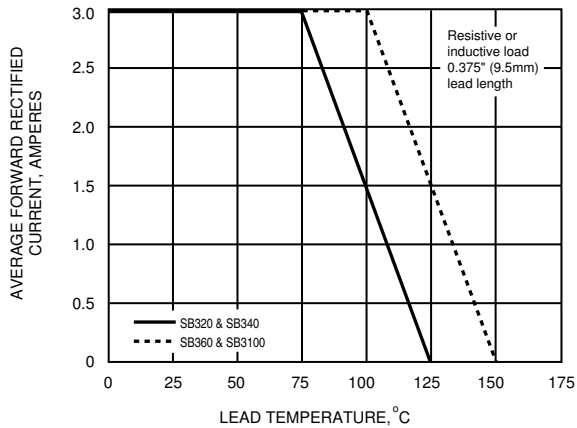


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

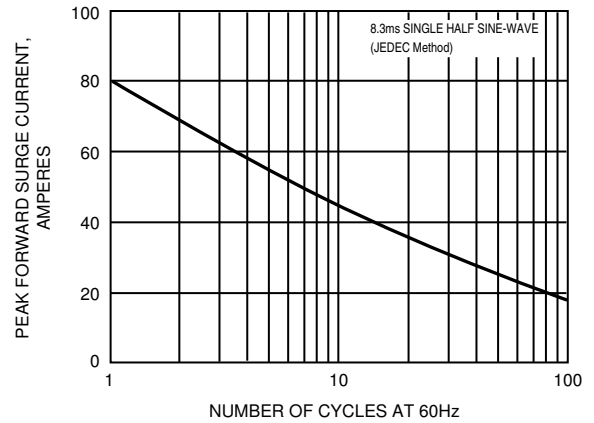


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

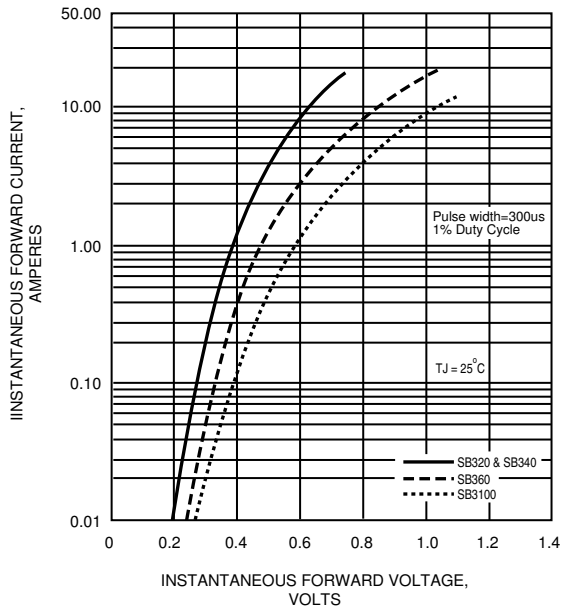


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

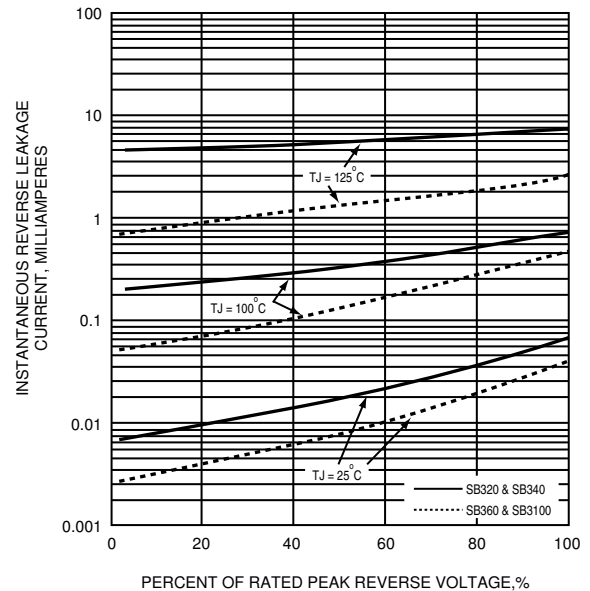


FIG.5 - TYPICAL JUNCTION CAPACITANCE

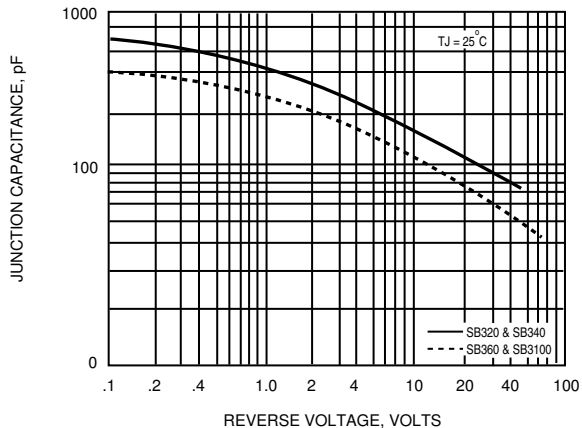


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

