



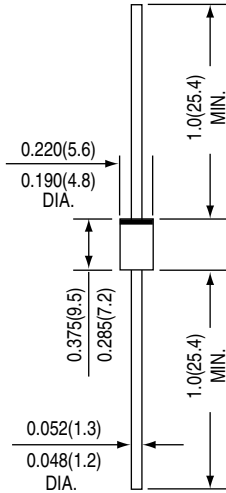
SB520 THRU SB5100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 5.0 Amperes

DO-201AD



*Dimensions in inches and (millimeters)



FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- * Metal to silicon rectifier, majority carrier conduction
- * Guardring for overvoltage protection
- * 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
- * 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	SB520	SB540	SB560	SB5100	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)	5.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150				Amps
Maximum instantaneous forward voltage at 5.0 A (NOTE 1)	VF	0.55		0.70	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage <div style="display: flex; justify-content: space-between;"> TA=25°C TA=100°C </div>	IR	0.5				mA
		50		25		
Typical thermal resistance (NOTE 2)	R θJA	25				°C / W
	R θJL	8.0				
Operating junction temperature range	TJ	-65 to +125		-65 to +150		°C
Storage temperature range	TSTG	-65 to +150				°C

NOTES : (1) Pulse test : 300 us pulse width, 1% duty cycle
 (2) Thermal resistance junction to lead vertical P.C.B. mounted 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES SB520 THRU SB5100

FIG.1 - FORWARD CURRENT DERATING CURVE

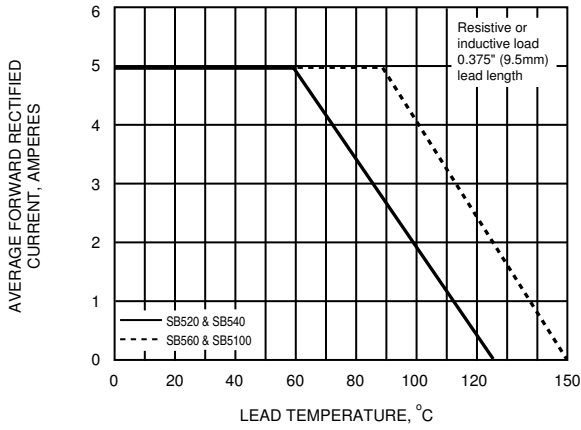


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

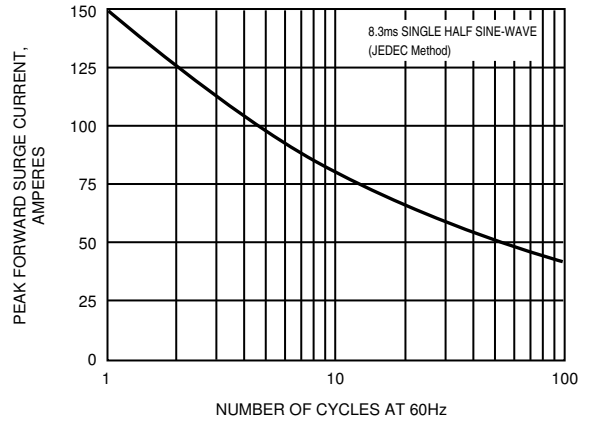


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

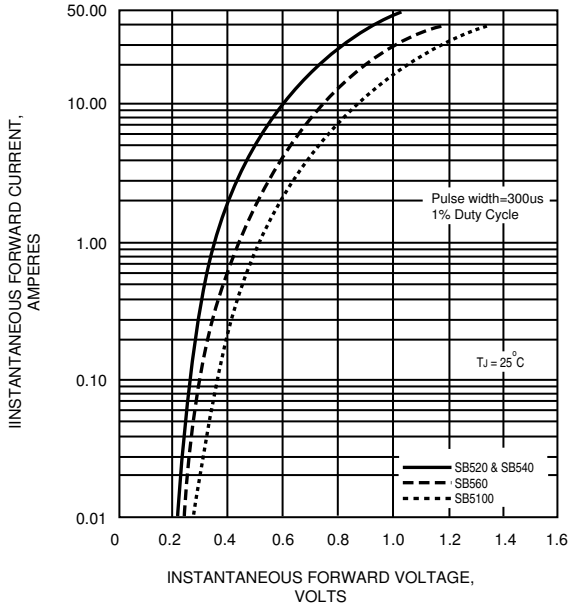


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

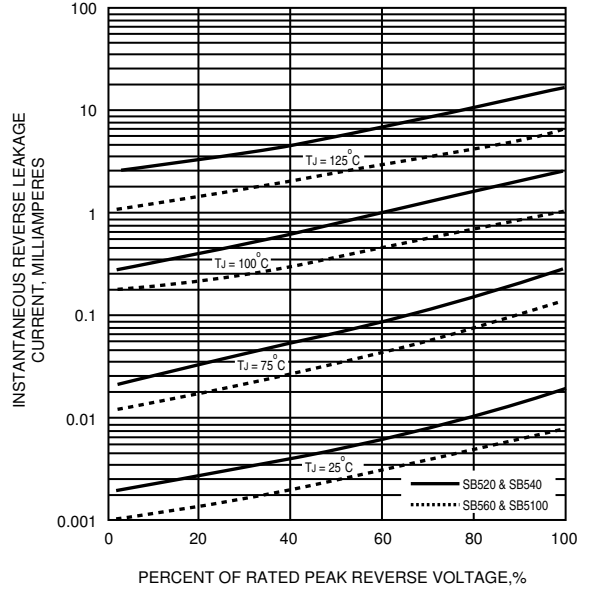


FIG.5 - TYPICAL JUNCTION CAPACITANCE

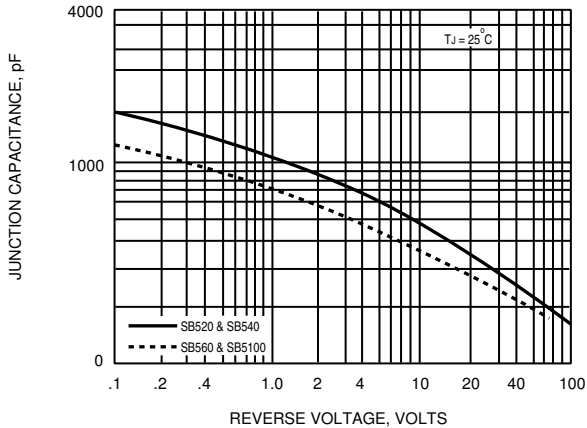


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

