

SB5100L

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 Volts
Forward Current - 5.0Amperes

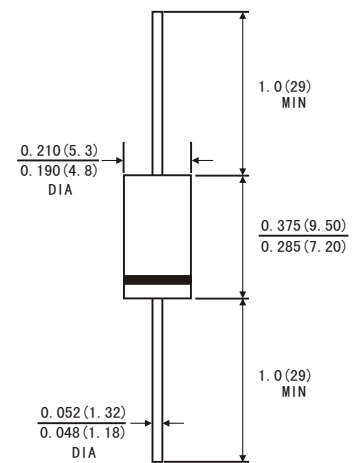
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring 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 at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- *Case:* JEDEC DO-201AD molded plastic body
- *Terminals:* Plated axial leads, solderable per MIL-STD-750,method 2026
- *Polarity:* color band denotes cathode end
- *Mounting Position:* Any
- *Weight:* 0.041ounce, 1.15 grams

DO-201AD/DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SB 5100L	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	Volts
Maximum RMS voltage	V_{RMS}	71	Volts
Maximum DC blocking voltage	V_{DC}	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 at rated T_J)	I_{FSM}	150.0	Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)	V_F	0.68	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I_R	$T_a = 25^\circ C$	0.2
		$T_a = 100^\circ C$	25
Typical junction capacitance(Note 3)	C_J	400	Pf
Typical thermal resistance (Note 2)	$R_{\theta JA}$	25.0	°C/W
	$R_{\theta JL}$	8.0	
Operating junction temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

Notes: 1.Pulse test: 300μ s pulse width,1% duty cycle

2.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

3.Measured at 1MHz and reverse voltage of 4.0 volts

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

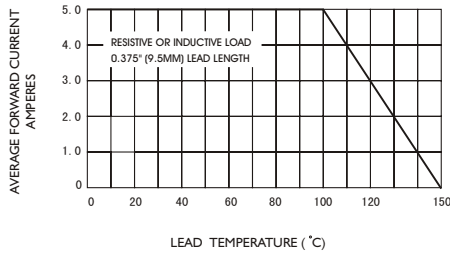


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

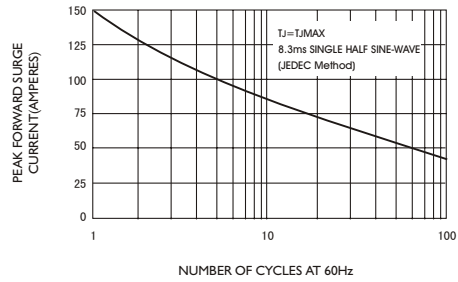


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

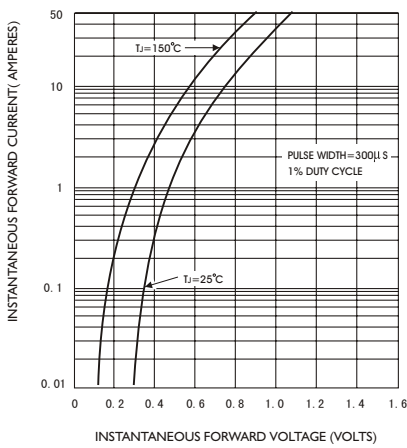


FIG.4-TYPICAL REVERSE CHARACTERISTICS

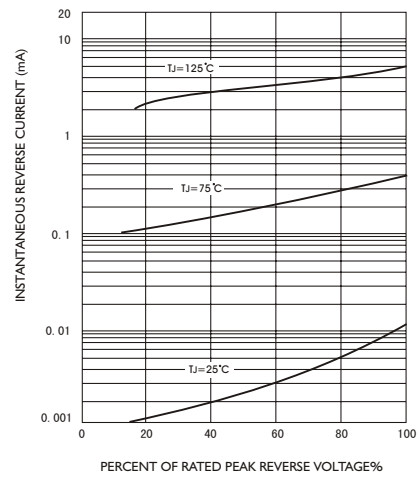


FIG.5-TYPICAL JUNCTION CAPACITANCE

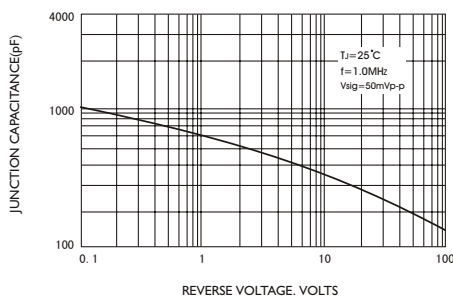


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

