

# SB580L

## 5.0AMP SCHOTTKY BARRIER RECTIFIER

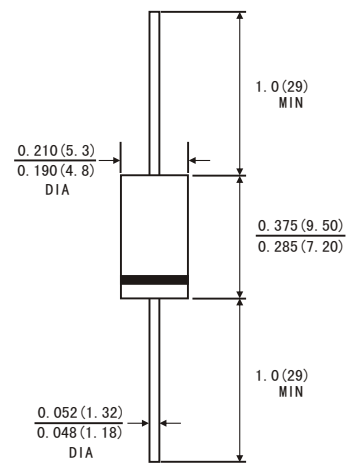
### FEATURES

- 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%.)

		SB580L		
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	80		Volts
Maximum RMS voltage	V <sub>RMS</sub>	56		Volts
Maximum DC blocking voltage	V <sub>DC</sub>	80		Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	I <sub(av)< sub=""></sub(av)<>	5.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T <sub>J</sub> )	I <sub>FSM</sub>	100.0		Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1 )	V <sub>F</sub>	0.58		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T <sub>a</sub> =25°C	0.1		mA
	T <sub>a</sub> =100°C	10		
Typical junction capacitance(Note 3)	C <sub>J</sub>	400		pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	25.0		°C/W
	R <sub>θJL</sub>	8.0		
Operating junction temperature range	T <sub>J</sub>	-65 to +150		°C
Storage temperature range	T <sub>STG</sub>	-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

## RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

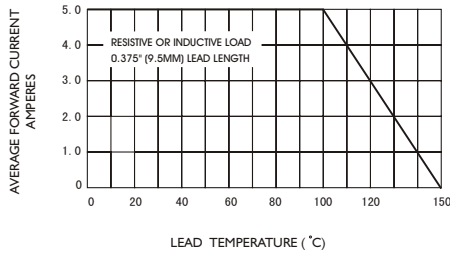


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

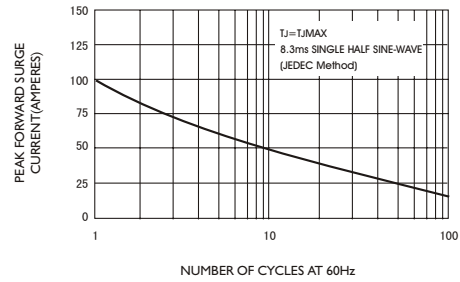


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

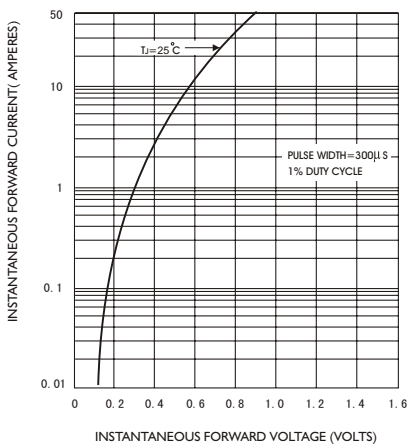


FIG.4-TYPICAL REVERSE CHARACTERISTICS

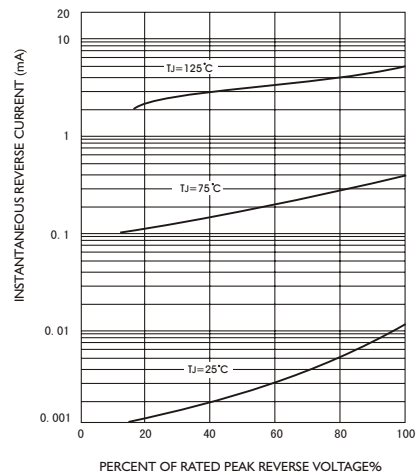


FIG.5-TYPICAL JUNCTION CAPACITANCE

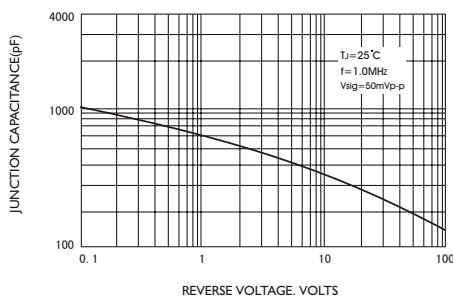


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

