

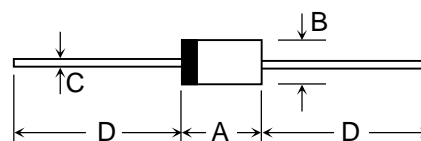


**5A LOW V<sub>F</sub> SCHOTTKY BARRIER RECTIFIER**  
**Reverse Voltage 100 Volts Forward Current 5.0 Amperes**

**Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- High temperature soldering guaranteed:  
25°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs.(2.3Kg) tension

**DO-201AD**



**Mechanical Data**

- Case: 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: 0.037 ounce, 1.05 grams (approximate)

DIM	Inches		mm	
	Min.	Max.	Min.	Max.
A	0.350	0.354	8.88	8.98
B	0.202	0.206	5.13	5.23
C	0.047	0.051	1.19	1.29
D	0.980	1.028	24.9	26.1

**Maximum Ratings and Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SB5100L	UNITS
Maximum repetitive peak reverse voltage	V <sub>RR</sub>	100	V
Maximum RMS voltage	V <sub>RMS</sub>	70	V
Maximum DC blocking voltage	V <sub>C</sub>	100	V
Average Rectified Output Current 0.375" (9.5mm) lead length (see Fig. 1)	I <sub>o</sub>	5.0	A
Peak forward surge current, 10 mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at rated T <sub>L</sub>	I <sub>FSM</sub>	80	A
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	0.68	V
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	0.5 25.0	mA
Typical thermal resistance	R <sub>θJA</sub>	25.0	°C/W
	R <sub>θJL</sub>	8.0	
Operating junction temperature range	T <sub>J</sub>	-65 to +125	°C
Storage temperature range	T <sub>STG</sub>	-65 to +150	°C



# SB5100L

## Ratings and Characteristic Curves

FIG. 1 – TYPICAL FORWARD CURRENT DERATING CURVE

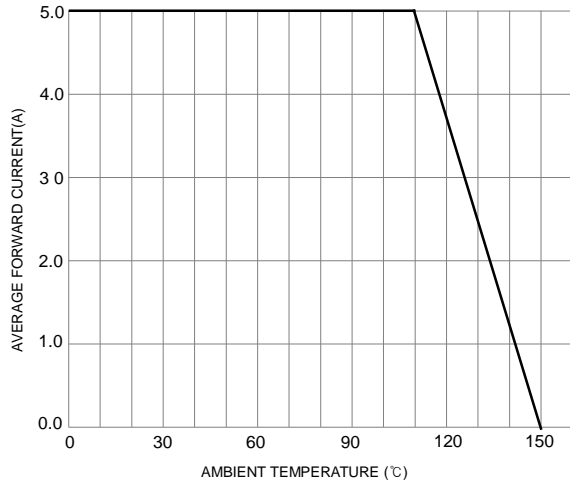


FIG. 2 – TYPICAL FORWARD CHARACTERISTICS

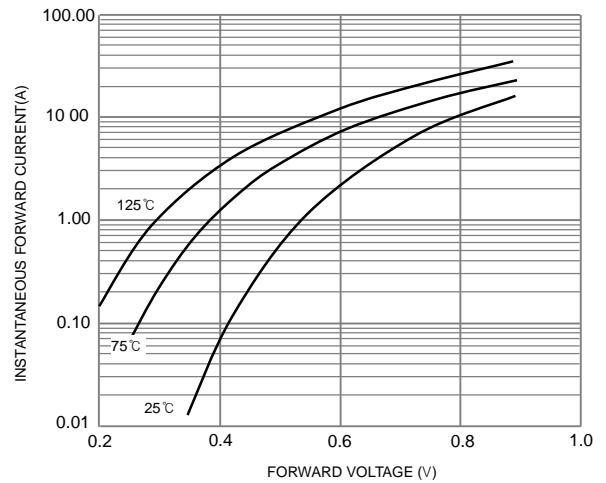


FIG. 3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

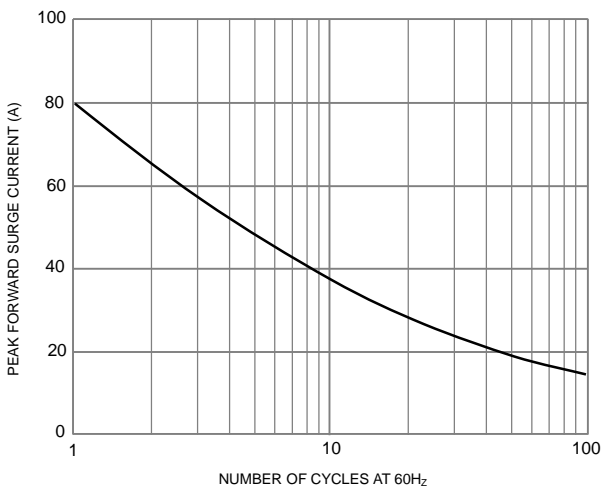


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

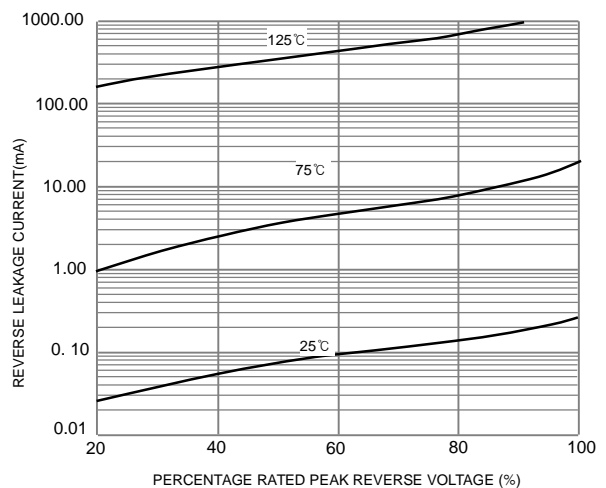


FIG. 5 – TYPICAL JUNCTION CAPACITANCE

