SB5100L

LOW VF SCHOTTKY BARRIER RECTIFIERS

| VOLTAGE | 100 Volts | CURRENT | 5 Amperes |

FEATURES

- Plastic package has Underwriters Laboratory
  Flammability Classification 94V-O utilizing
  Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage,high frequency inverters ,free wheeling ,
  and polarity protection applications .
- Lead free in comply with EU RoHS 2002/95/EC directives.

MECHANICAL DATA

- Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.0395 ounces, 1.122 grams

DO-201AD

Unit : inch(mm)

1.0(25.4)MIN.
0.052(1.3)
0.048(1.2)
0.375(9.5)
0.285(7.2)
1.0(25.4)MIN.
0.210(5.3)
0.188(4.8)
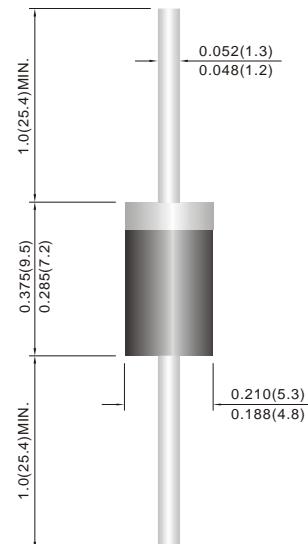
MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum rms voltage	V_{RMS}	70	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	250	A
Typical Thermal Resistance	$R_{\Theta JA}$	45	°C/W
Operating junction temperature range	T_J	-55 to + 150	°C
Storage temperature range	T_{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		TYP.	MAX.	UNIT
Breakdown voltage	V_{BR}	I_R=0.5mA		100	-	V
Instantaneous forward voltage	V_F	I_F=1A I_F=3A I_F=5A	T_A=25°C	0.44 0.58 0.68	- - 0.70	V
		I_F=1A I_F=3A I_F=5A	T_A=125°C	0.35 0.49 0.56	- - 0.6	V
Reverse current	I_R	V_R=70V		10	-	μA
		V_R=100V	T_A=25°C T_A=125°C	- -	50 50	μA mA

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Fig.1 Forward Current Derating Curve

Mounted on P.C.B with 10x10cm copper surface at 0.375" (9.5mm) lead length

I_F, Forward Current (A)

T_C, Case Temperature (°C)
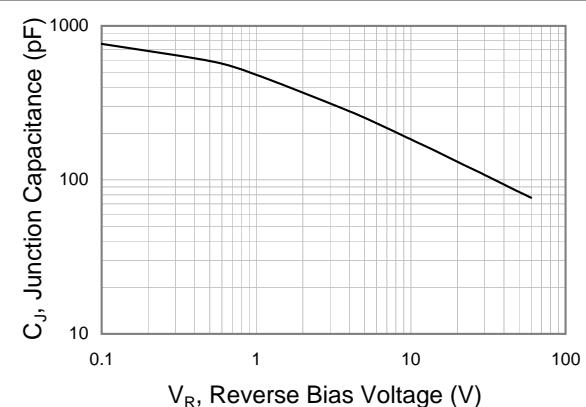
Fig.2 Typical Junction Capacitance

C_J, Junction Capacitance (pF)

V_R, Reverse Bias Voltage (V)
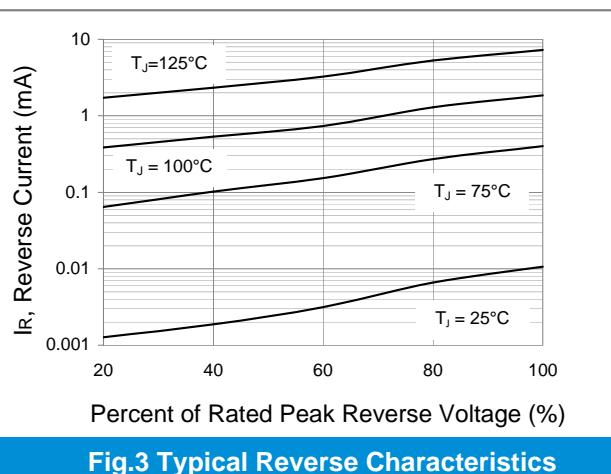
Fig.3 Typical Reverse Characteristics

T_J=125°C

T_J = 100°C

T_J = 75°C

T_J = 25°C

I_R, Reverse Current (mA)

Percent of Rated Peak Reverse Voltage (%)
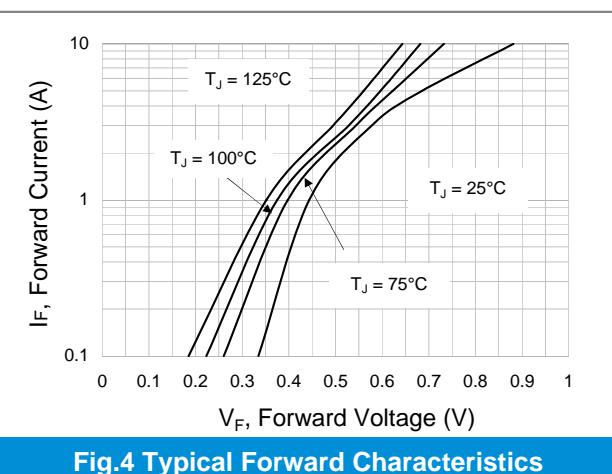
Fig.4 Typical Forward Characteristics

T_J = 125°C

T_J = 100°C

T_J = 25°C

T_J = 75°C

I_F, Forward Current (A)

V_F, Forward Voltage (V)