SB3100L

3A/100V Low VF Schottky Rectifier

FEATURES

- ✧Metal silicon junction, majority carrier conduction
- ✧Guardring for overvoltage protection
- ✧High current capability, low forward voltage drop
- ✧Low power loss, high efficiency
- ✧High surge capability
- ✧Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✧For use in low voltage, high frequency inverters, free wheeling, and polarity protection application

MACHANICAL DATA

- ✧Case: DO-201AD(DO-27) plastic package
- ✧Terminal: Matte tin plated, solderable per MIL-STD-750, Method 2026
- ✧Molding Compound Flammability Rating:UL94-0
- ✧High temperature soldering guaranteed: 260°C/10second
- ✧Packed with FRP substrate and epoxy underfilled

ORDERING INFORMATION

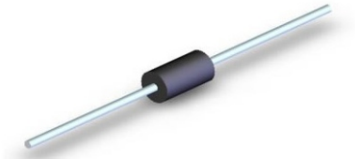
- ✧Device: SB3100L
- ✧Package: DO-201AD(DO-27)
- ✧Marking: SB3100L
- ✧Material: RoHS compliant
- ✧Packing: Tape & Ammo
- ✧Quantity per box: 1,250pcs

APPLICATIONS

- ✧Switching mode power supply applications
- ✧Portable equipment battery applications
- ✧High frequency rectification
- ✧DC/DC converter

PIN CONFIGURATION

PACKAGE OUTLINE



ABSOLUTE MAXIMUM RATING (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM}	Maximum repetitive peak reverse voltage	100	V
V_{RMS}	Maximum RMS voltage	70	V
V_{DC}	Maximum DC blocking voltage	100	V
I_o	Average Rectified Output Current 0.375 θ (9.5mm) lead length	3.0	A
I_{FSM}	Peak forward surge current, 8.3 mS single half sine-wave superimposed on rated load	80	A
$R_{\theta JA}$	Typical thermal resistance	20	θ /W
T_J	Operating junction temperature range	-55 to+125	θ
T_{STG}	Storage temperature range	-55 to+150	θ

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ELECTRICAL CHARACTERISTICS (Tamb=25°C, unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_F	Forward Voltage	I_F = 3A			0.75	V
V_R	Reverse Breakdown Voltage	I_R = 0.5mA	100			V
I_R	Reverse Leakage Current	V_R = 100V Ta=25°C			500	A
		V_R = 100V Ta=125°C			50	mA

ELECTRICAL CHARACTERISTICS CURVE

FIG. 1 – TYPICAL FORWARD CURRENT DERATING CURVE

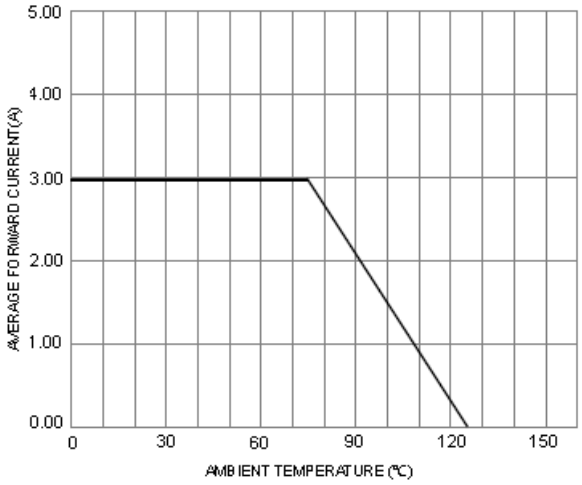


FIG. 2 – TYPICAL FORWARD CHARACTERISTICS

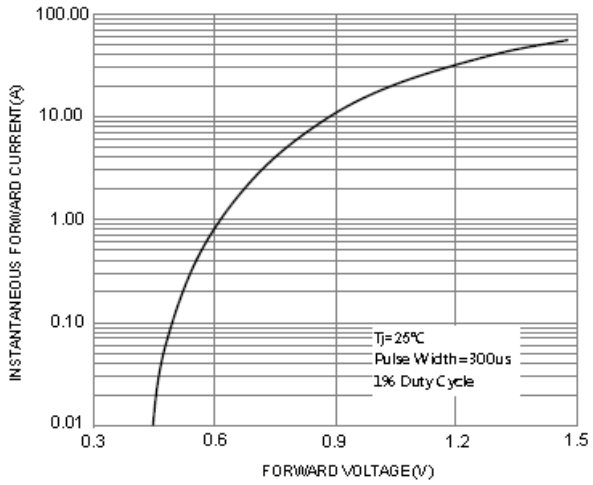


FIG. 3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

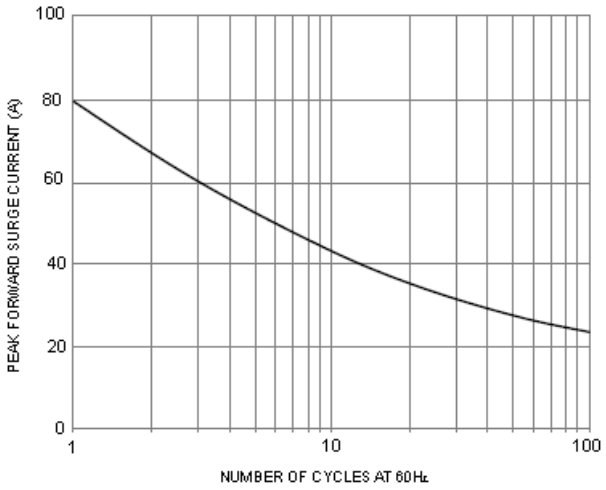
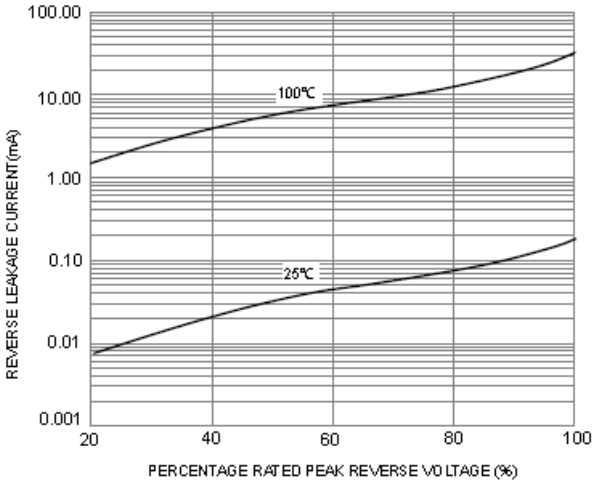
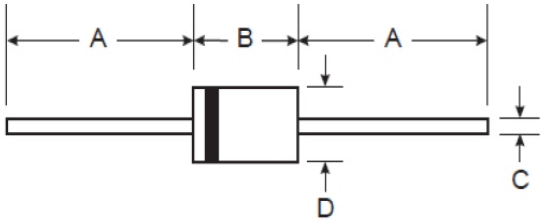


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS



DO-201AD(DO-27) PACKAGE OUTLINE DIMENSIONS



DO-201AD(DO-27) Plastic				
Dim	Min		Max	
	Inch	mm	Inch	mm
A	1.0	25.4	-	-
B	0.285	7.2	0.375	9.5
C	0.039	1.0	0.052	1.3
D	0.190	4.8	0.210	5.3