

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 3.0 Amperes

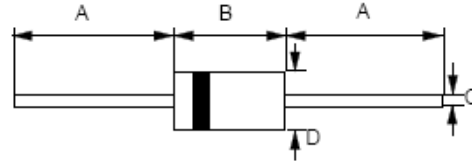
FEATURES

- Metal-semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic
- Polarity: Color band denotes cathode
- Weight: 1.1 grams
- Mounting position: Any

DO-201AD



DO-201AD		
Dim.	Min.	Max.
A	25.4	-
B	7.30	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SB3100	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	VDC	100	V
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths @ $T_C=125^\circ\text{C}$	I_{AV}	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave @ $T_A=25^\circ\text{C}$	I_{FSM}	80	A
Maximum Forward Voltage $I_F=3.0\text{A}, T_J=25^\circ\text{C}$ $I_F=3.0\text{A}, T_J=100^\circ\text{C}$	V_F	0.79 0.69	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J(T_A)=25^\circ\text{C}$ @ $T_J(T_A)=100^\circ\text{C}$	I_R	0.02 5	mA
Typical Junction Capacitance (Note 4)	C_T	90	pF
Typical Thermal Resistance (Note 5)	$R_{\theta JL}$ $R_{\theta JC}$	10 10	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

REV.12, Oct-2021, KDHF03

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal Resistance Junction to Lead

RATING AND CHARACTERISTIC CURVES
SB3100(LS)

FIG.1 - FORWARD CURRENT DERATING CURVE

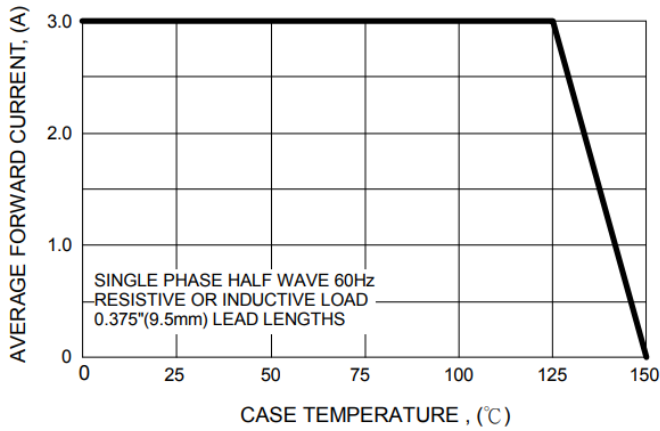


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

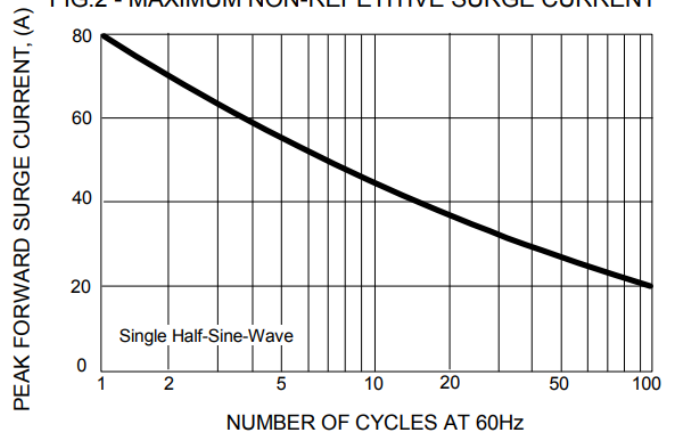


FIG.3 - TYPICAL JUNCTION CAPACITANCE

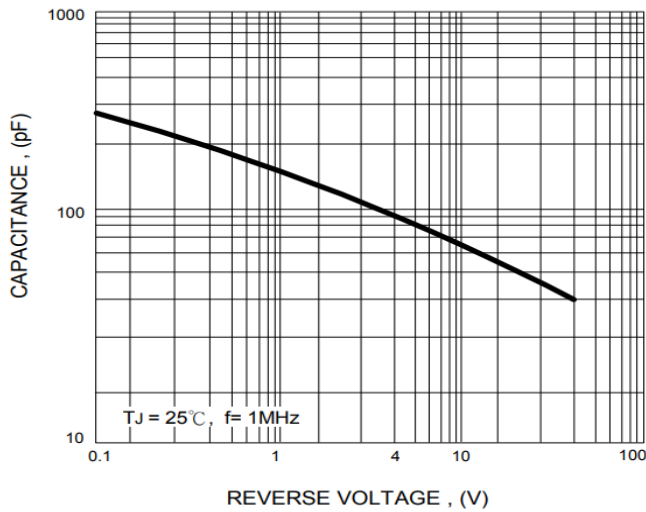


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

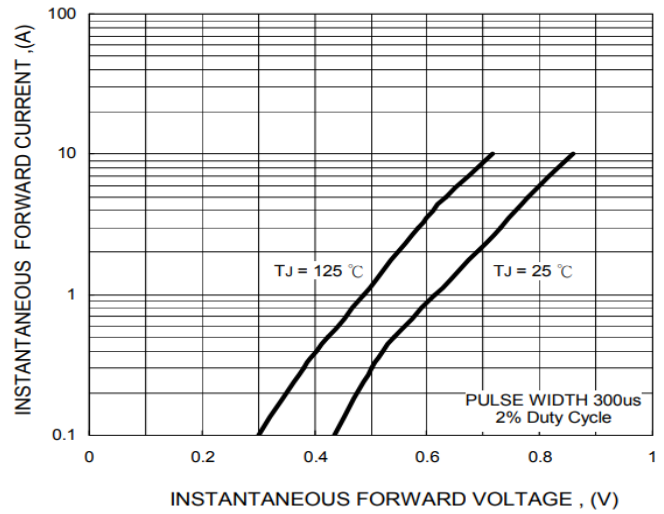
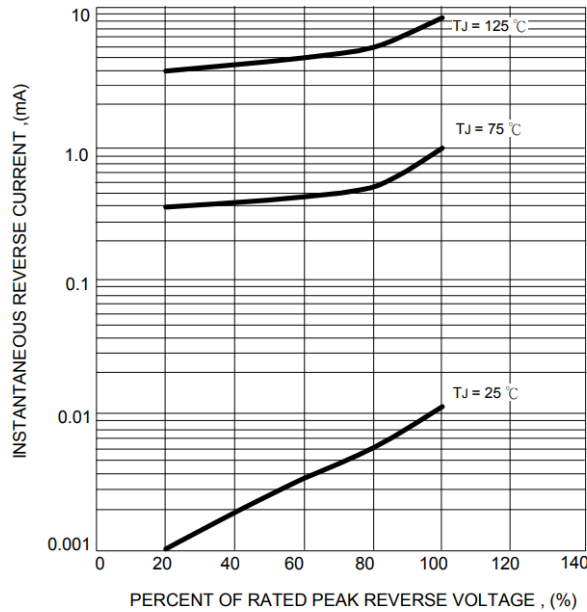


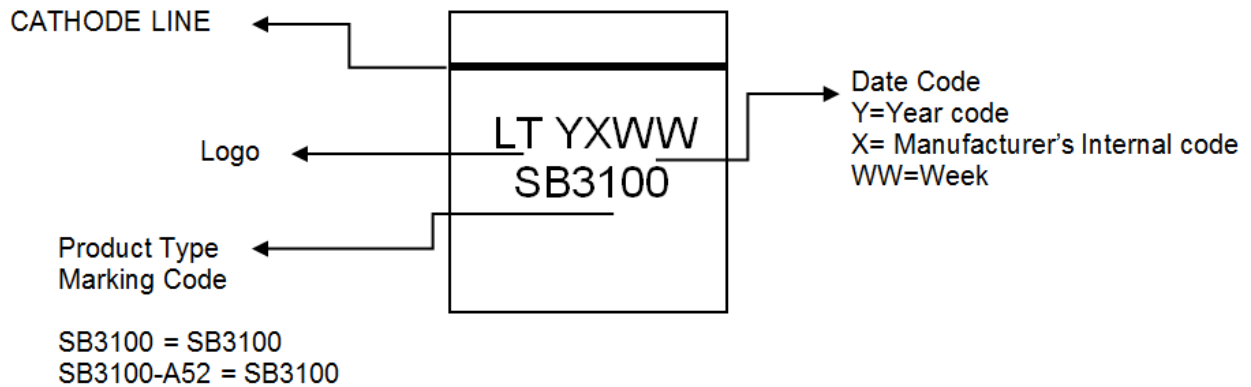
FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
SB3100	DO-201AD	1200	Tape & Reel
SB3100-A52	DO-201AD	1000	Ammo Pack

Marking Information:



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