

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 100 Volts
FORWARD CURRENT - 2.0 Amperes

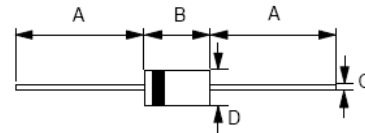
FEATURES

- 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

- Package: JEDEC DO-15 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.015 ounces, 0.4 grams
- Mounting position: Any

DO-15



DO-15		
Dim.	Min.	Max.
A	25.4	-
B	5.80	7.60
C	0.71 \varnothing	0.86 \varnothing
D	2.60 \varnothing	3.60 \varnothing
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current @ $T_A=75^\circ\text{C}$	$I_{(AV)}$	2.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	60	A
Maximum Forward Voltage at 2.0A DC @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	V_F	0.79 0.69	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	0.01 10	mA
Typical Thermal Resistance (Note 4)	$R_{\theta JC}$	10	$^\circ\text{C/W}$
Typical Thermal Resistance (Note 5)	$R_{\theta JA}$	20	$^\circ\text{C/W}$
Typical Junction Capacitance (Note 6)	C_J	250	pF
Operating Temperature Range	T_J	-55 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes:

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. Thermal Resistance Junction to Case.
5. Thermal Resistance Junction to Ambient.
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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RATING AND CHARACTERISTIC CURVES

SB2100

FIG.1 - FORWARD CURRENT DERATING CURVE

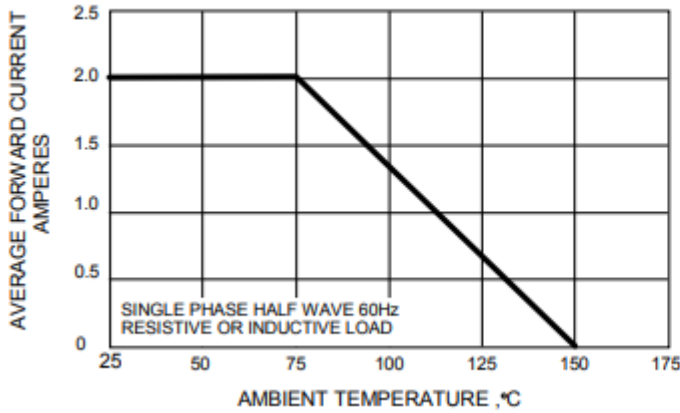


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

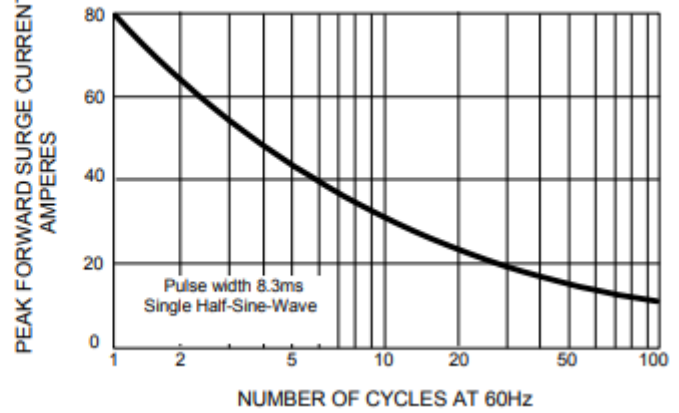


FIG.3 - TYPICAL JUNCTION CAPACITANCE

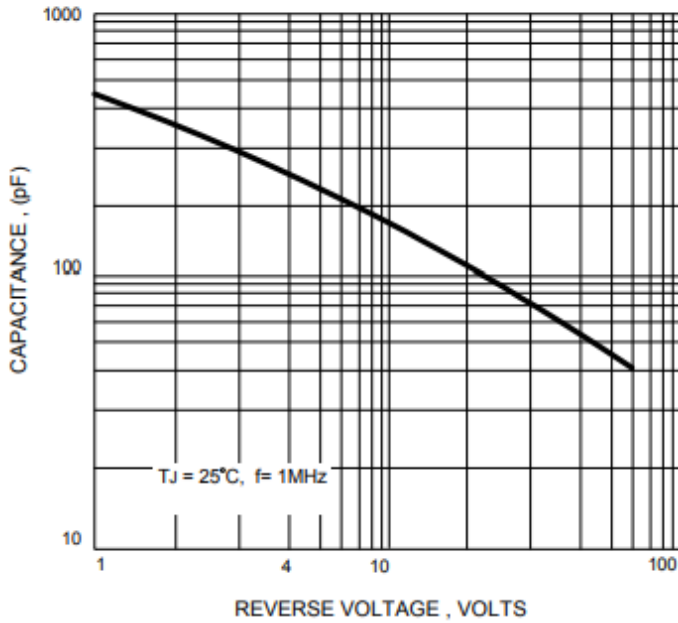


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

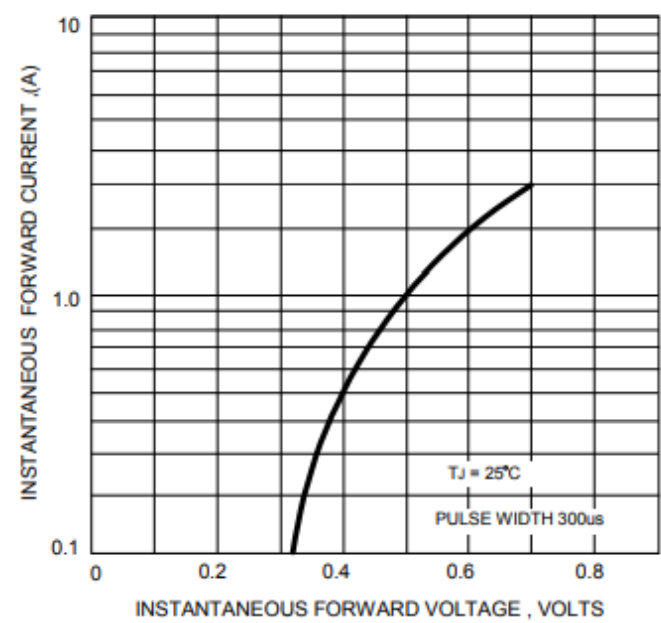
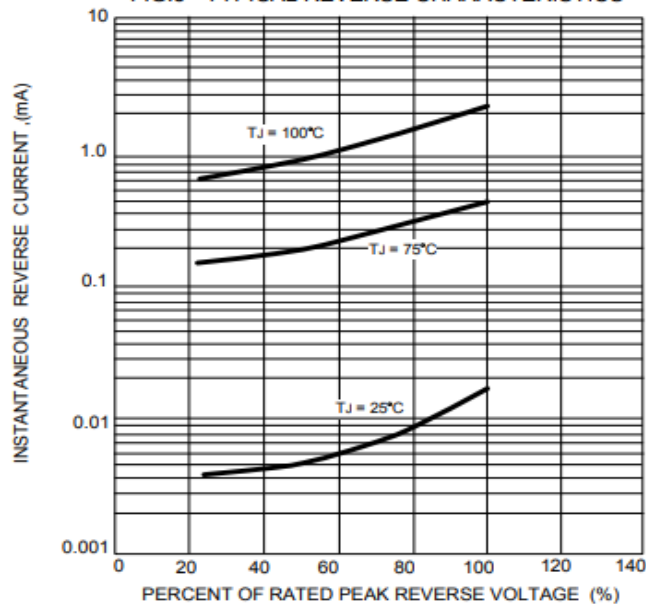


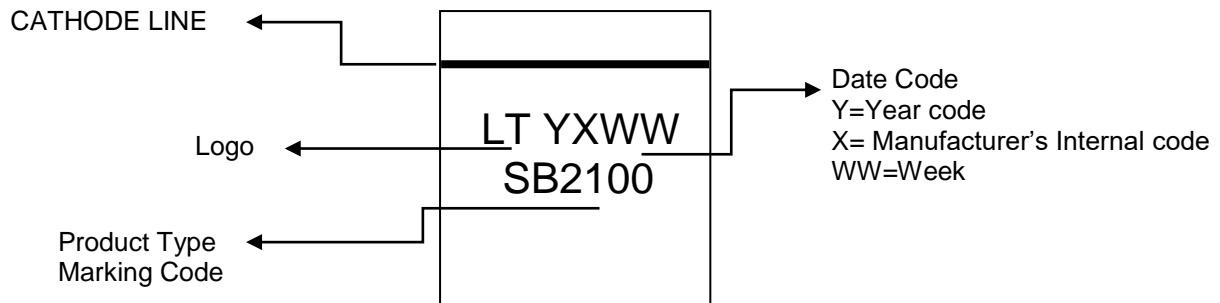
FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
SB2100	DO-15	4000	Tape & Reel
SB2100-A52	DO-15	2000	Ammo Box

Marking Information:



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