

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE – 150 Volts
FORWARD CURRENT – 5.0 Amperes

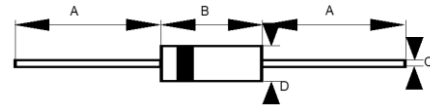
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94-0
- 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-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight : 1.0675 grams (Approximate)
- 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.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC blocking voltage	V_{DC}	150	V
Average rectified forward current	$I_{(AV)}$	5.0	A
Peak forward surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125	A
Peak Repetitive Reverse current	I_{RRM}	1	A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ +175	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX	UNIT
Forward voltage	$I_F = 5A$ $T_J = 25^\circ C$	V_F	--	0.92	V
Reverse leakage current	$V_R = 150V$ $T_J = 25^\circ C$ $T_J = 150^\circ C$	I_R	--	8 20	μA mA
Typical junction capacitance (Note 4)		C_J		150	pF

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Notes 5, 6)	R_{thJL} R_{thJc}	10 12	°C/W

Note:

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 4.0 VDC.
5. Thermal Resistance Junction to Lead.
6. Thermal Resistance Junction to Case.

FIG.1 - FORWARD CURRENT DERATING CURVE

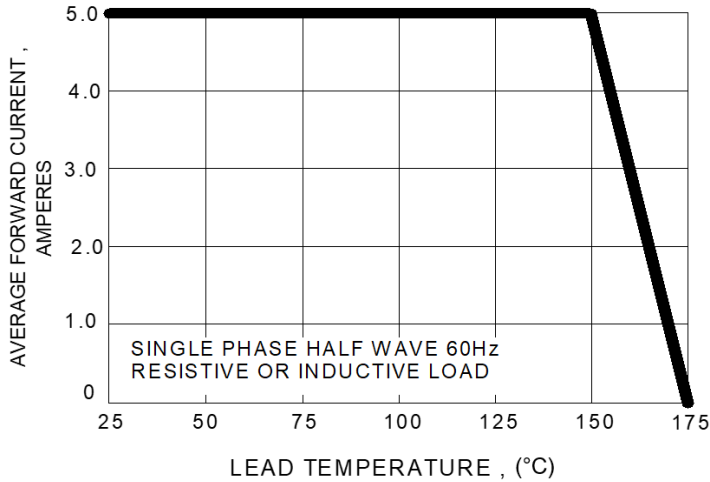


FIG.2 - MAXIMUM NONREPETITIVE SURGE CURRENT

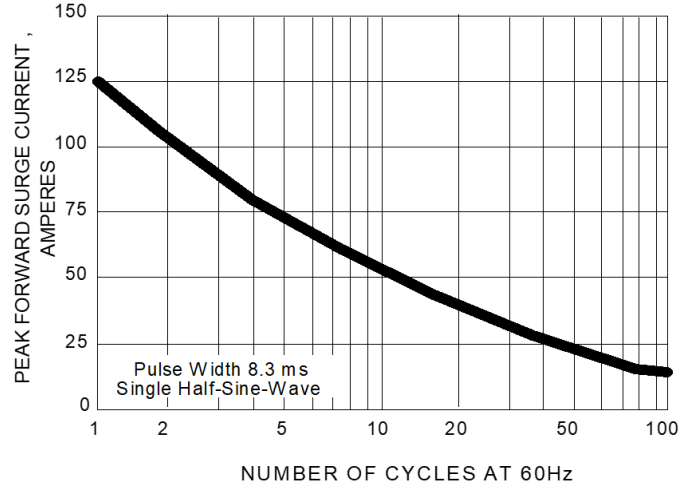


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

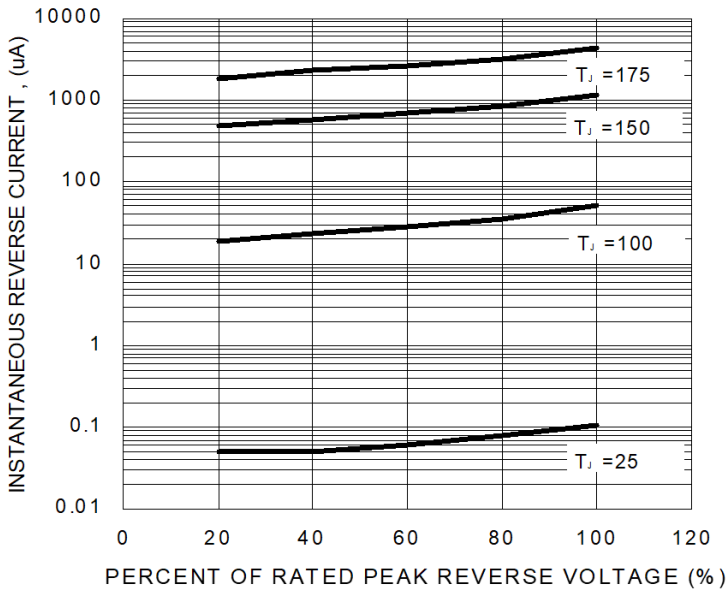


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

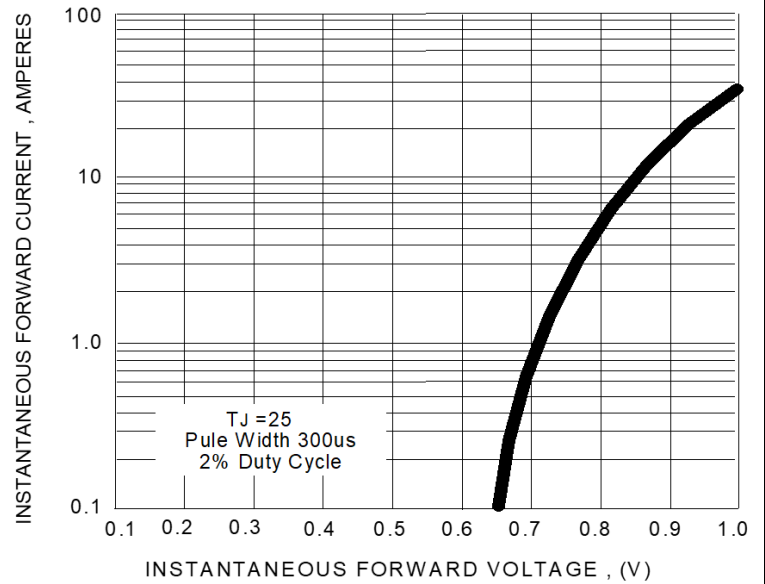
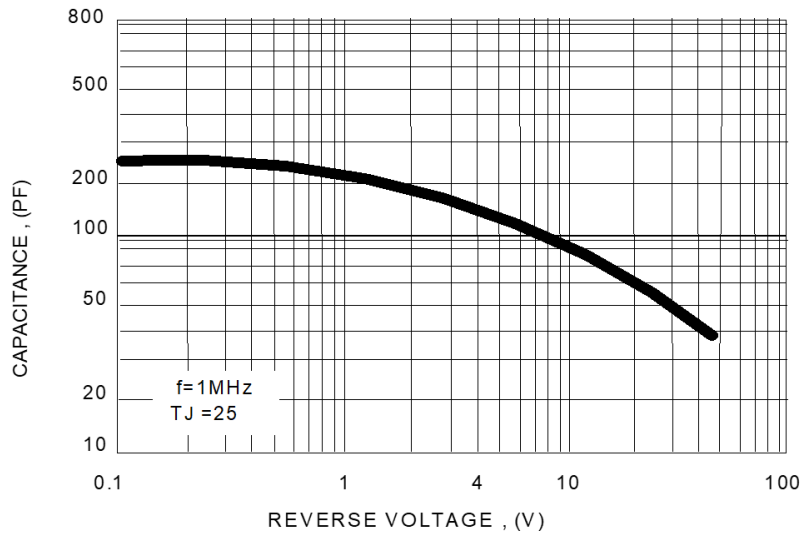


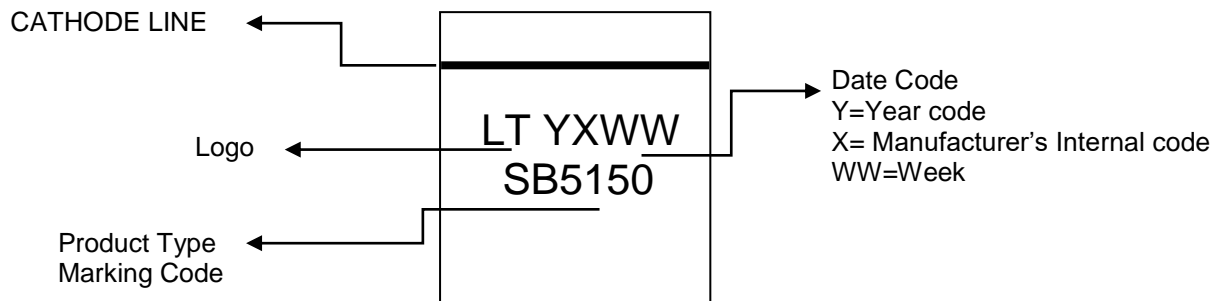
FIG.5 - TYPICAL JUNCTION CAPACITANCE



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
SB5150	DO-201AD	1200	Tape & Reel
SB5150_MC20	DO-201AD	500	Bulk Pack
SB5150_FR	DO-201AD	500	Bulk Pack
SB5150-A52	DO-201AD	1000	Ammo Box

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