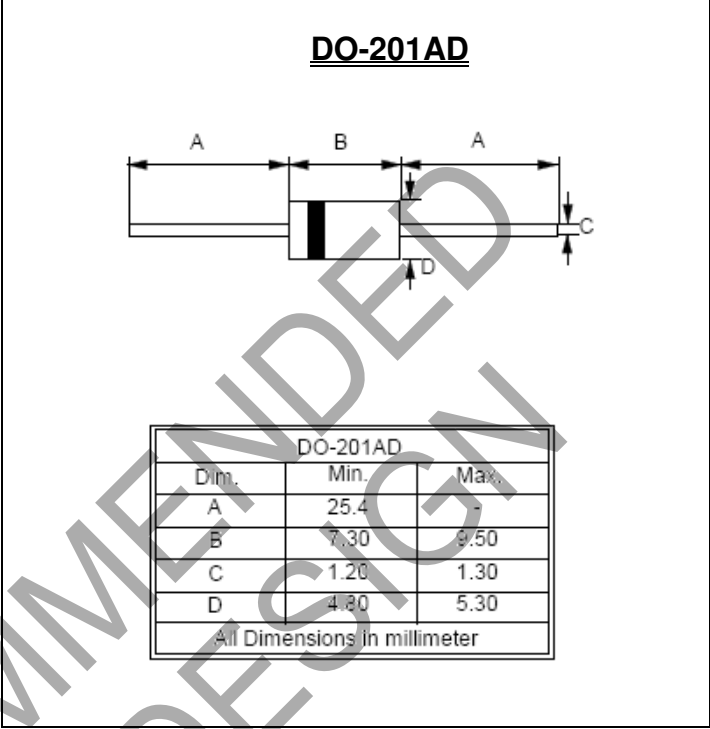


SB550-SB560(LS)

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 50 to 60 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 94V-0
 - For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
 - ESD Capability:
Machine Model, C (> 400 V)
Human Body Model, 3B (> 8 kV)
 - IEC 61000-4-2, level 4 (ESD). > 15KV (air)
 - **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: 1.1 grams
 - Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SB550	SB560	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V
Maximum RMS Voltage	V_{RMS}	35	42	V
Maximum DC Blocking Voltage	VDC	50	60	V
Maximum Average Forward Rectified Current @Tc=115°C	I_{AV}	5.0		A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150		A
Peak Repetitive Reverse Current tp=2us, square F=1KHz @Tj=25°C	I_{RRM}	1.0		A
Maximum Forward Voltage at 5.0A DC	V_F	0.67		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Tj=25°C @Tj=100°C	I_R	0.2 20	0.1 20	mA
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$ $R_{\theta JC}$	10 12		°C/W
Typical Junction Capacitance (Note 5)	C_T	350		pF
Operating Junction Temperature Range	T_j	-55 to +150		°C
Storage Temperature Range	T_{STG}	-55 to +150		°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 Lead and Case.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATING AND CHARACTERISTIC CURVES
SB550-SB560

FIG.1- FORWARD CURRENT DERATING CURVE

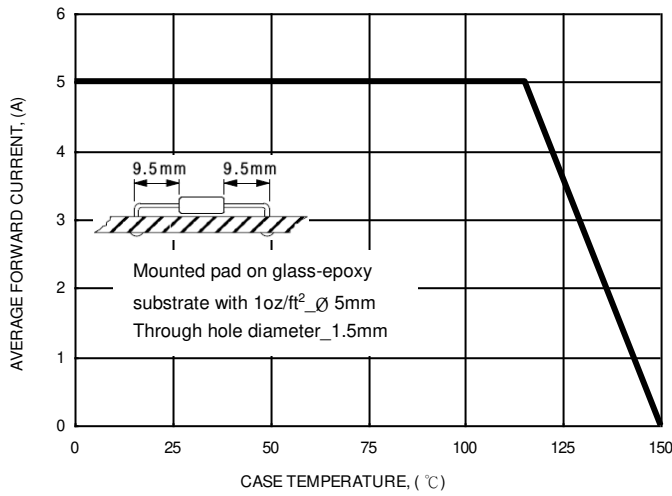


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

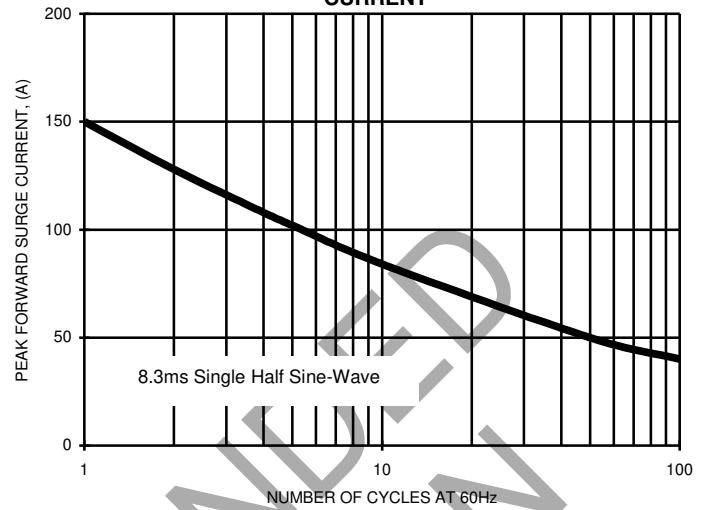


FIG.3- TYPICAL JUNCTION CAPACITANCE

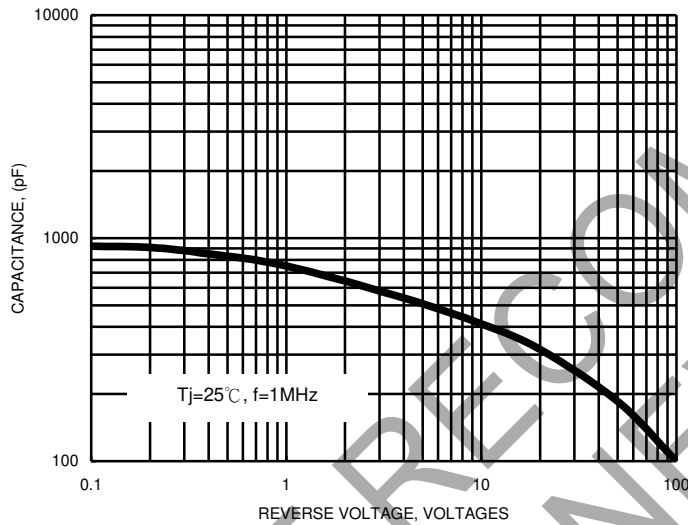


FIG.4- TYPICAL FORWARD CHARACTERISTICS

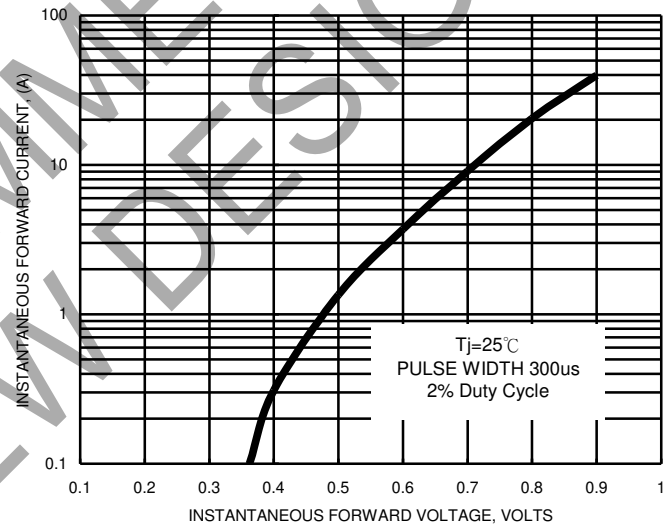


FIG.5- TYPICAL REVERSE CHARACTERISTICS

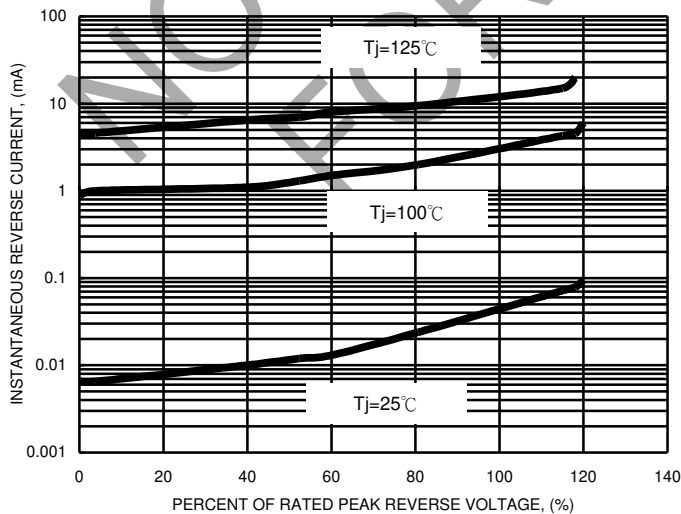
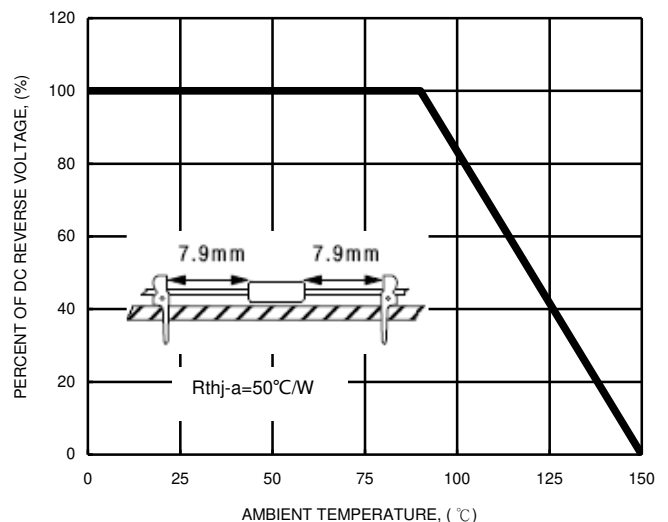


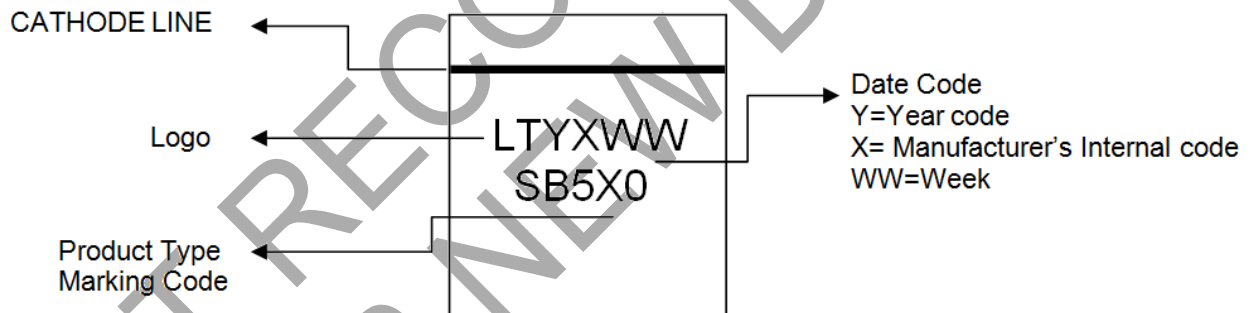
FIG.6- DC REVERSE VOLTAGE DERATING CURVE



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
SB550	DO-201AD	1200	Tape & Reel
SB560	DO-201AD	1200	Tape & Reel
SB560_MC20	DO-201AD	500	Bulk Pack
SB560_FR	DO-201AD	500	Bulk Pack
SB560_A52	DO-201AD	1000	Ammo Pack

Marking Information:



SB550=SB550

SB560=SB560

SB560=SB560_MC20

SB560=SB560_FR

SB560=SB560_A52

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