

## SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE – 40 Volts**  
**FORWARD CURRENT – 5.0 Amperes**

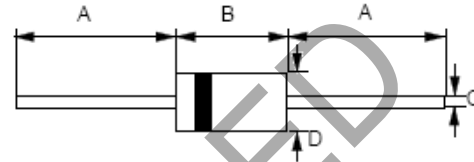
### FEATURES

- 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
- 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: 0.04 ounces, 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.

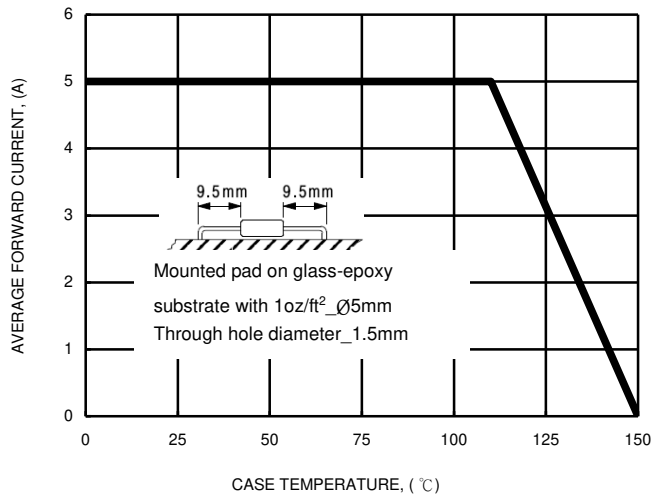
CHARACTERISTICS	SYMBOL	SB540	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	VDC	40	V
Maximum Average Forward Rectified Current @TC=110°C	$I_{AV}$	5.0	A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150	A
Maximum Forward Voltage at 5.0A DC	$V_F$	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @Tj=25°C @Tj=100°C	$I_R$	0.15 20	mA
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$	9.0	°C/W
Typical Junction Capacitance (Note 5)	$C_j$	300	pF
Operating Junction Temperature Range	$T_j$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

**Notes:**

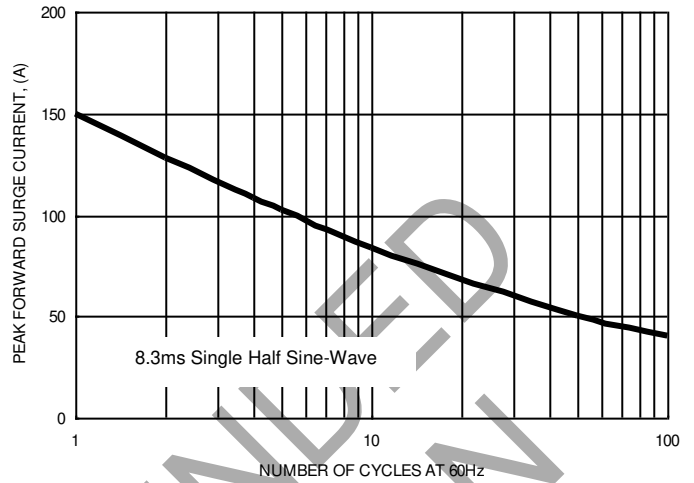
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- 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.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

**RATING AND CHARACTERISTIC CURVES**  
**SB540**

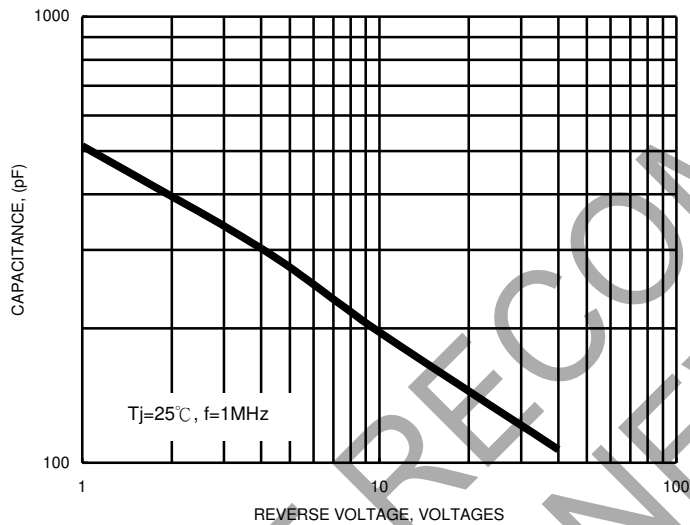
**FIG.1- FORWARD CURRENT DERATING CURVE**



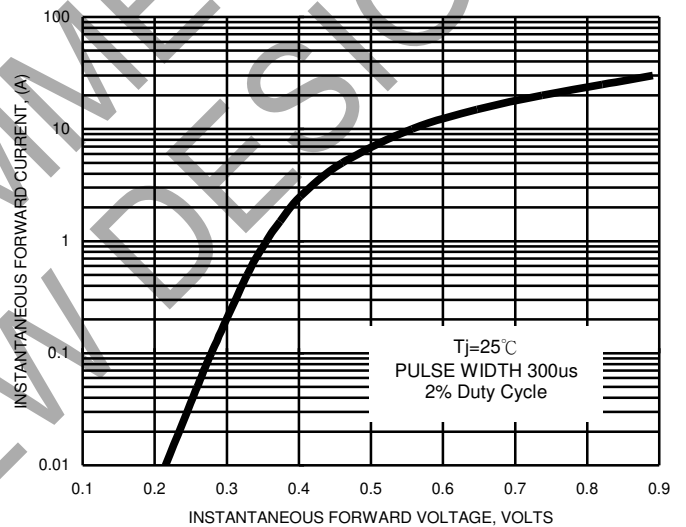
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



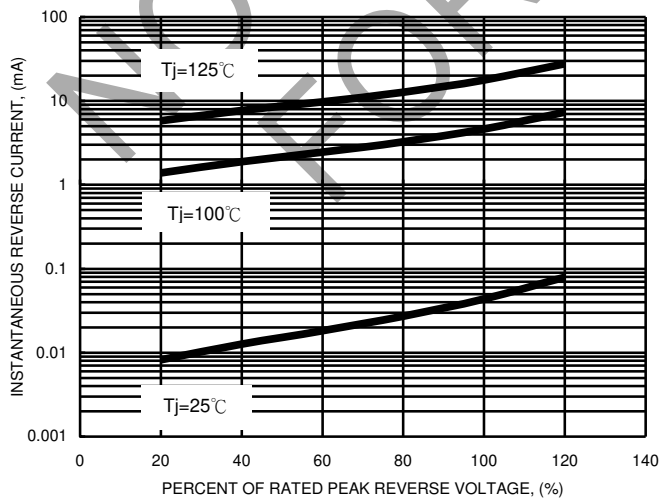
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



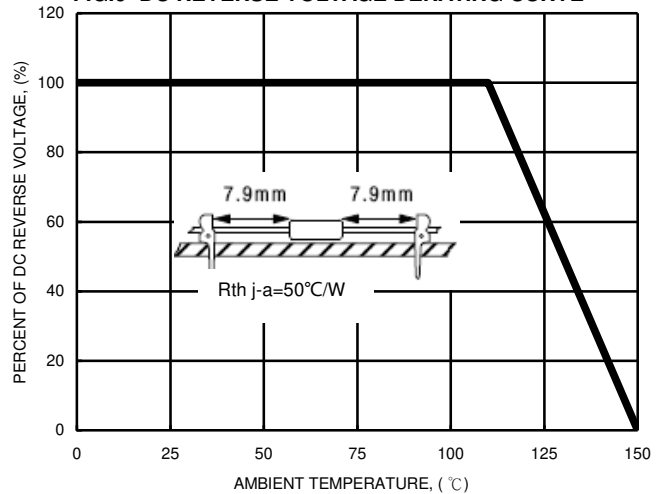
**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



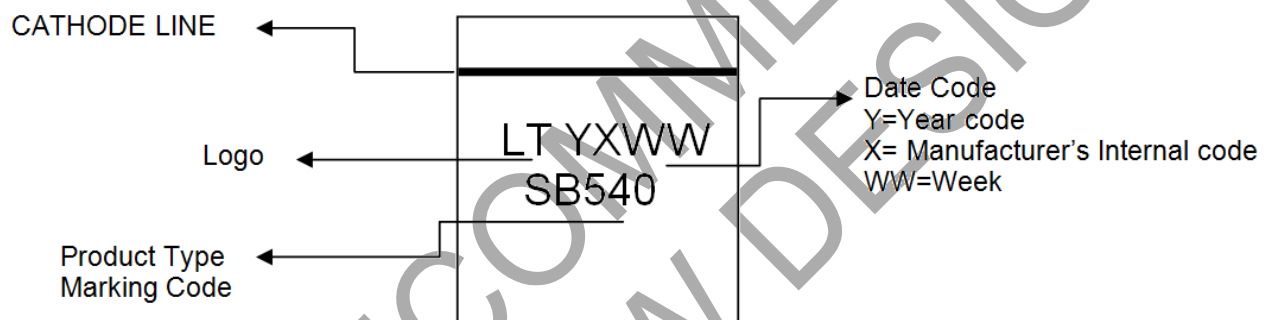
**FIG.6- DC REVERSE VOLTAGE DERATING CURVE**



### Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
SB540	DO-201AD	1200	Tape & Reel
SB540_FR	DO-201AD	500	Bulk Pack
SB540-A52	DO-201AD	1000	Ammo Pack

### Marking Information:



NOT RECOMMENDED FOR NEW DESIGN

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