



# DATA SHEET

## SB520 thru SB5150

### SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 150 Volts **CURRENT** 5 Amperes

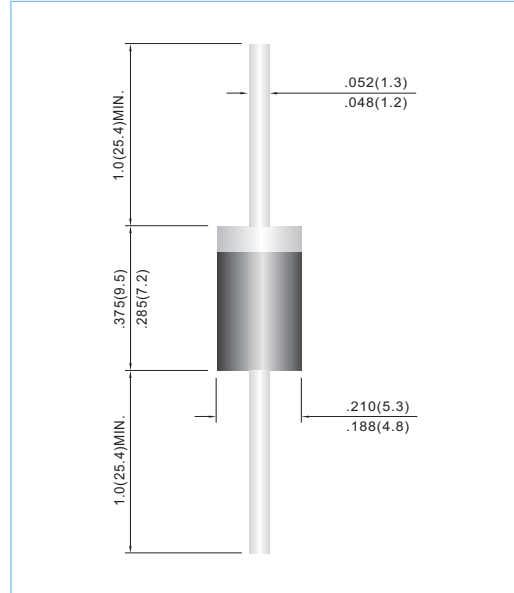
**DO-201AD** Unit: inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available: 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: DO-201AD Molded plastic  
 Terminals: Axial leads, solderable per MIL-STD-202G, Method 208  
 Polarity: Color band denotes cathode  
 Mounting Position: Any  
 Weight: 0.04 ounces, 1.1 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

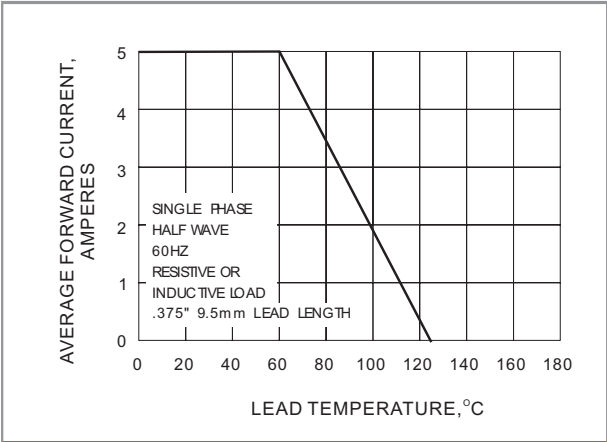
PARAMETER	SYMBOL	SB520	SB530	SB540	SB550	SB560	SB580	SB5100	SB5150	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at $T_L = 60^\circ C$	$I_{AV}$	5								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150								A
Maximum Forward Voltage at 5.0A	$V_F$	0.55		0.70		0.85		0.92		V
Maximum DC Reverse Current $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	$I_R$	0.5				50				mA
Maximum Thermal Resistance (Note 1)	$R_{\theta JL}$	15			10				$^\circ C / W$	
Operating Junction Temperature Range	$T_J$	-50 to +125								$^\circ C$
Storage Temperature Range	$T_{STG}$	-50 to +150								$^\circ C$

NOTES:

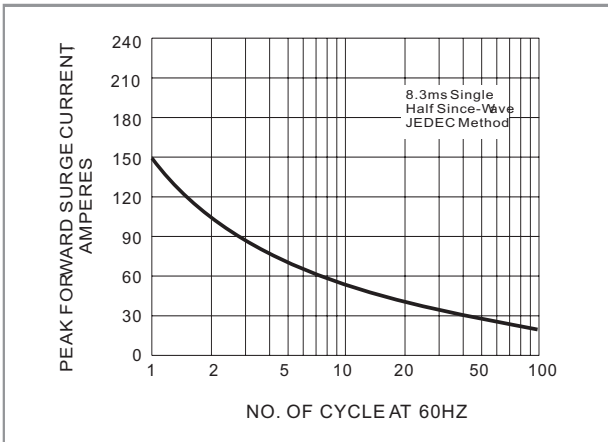
1. Thermal Resistance Junction to Lead Vertical PC Board Mounting .375" (9.5mm) Lead Lengths.



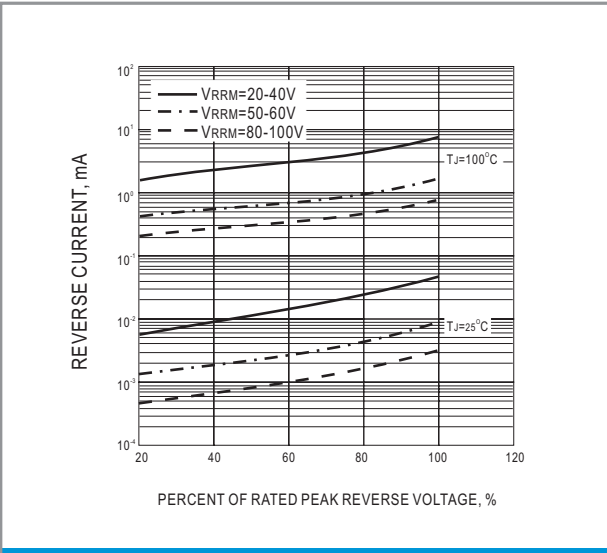
**RATING AND CHARACTERISTIC CURVES**



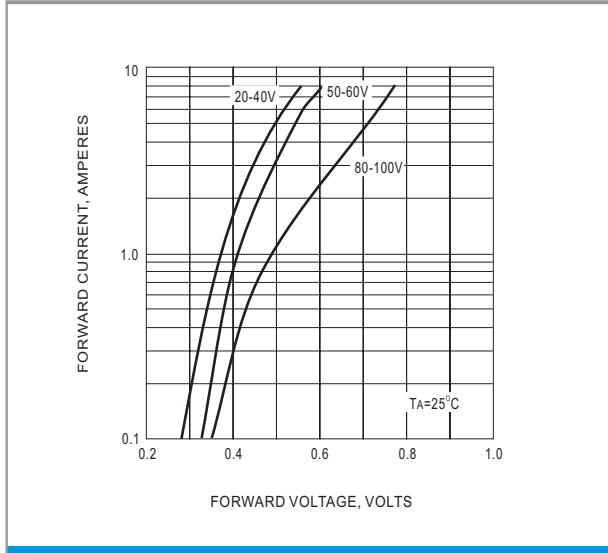
**Fig. 1- FORWARD CURRENT DERATING CURVE**



**Fig. 2- TMAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig. 3- TYPICAL REVERSE CHARACTERISTIC**



**Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**

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