



DATA SHEET

SB520 thru SB5150

SCHOTTKY BARRIER RECTIFIERS

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

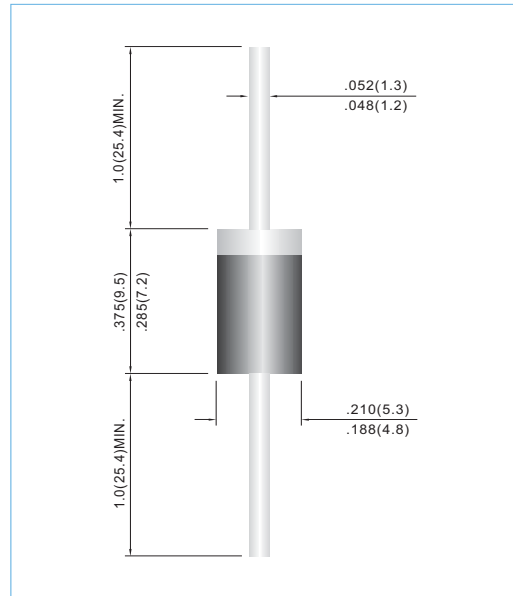
DO-201AD Unit: inch(mm)

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

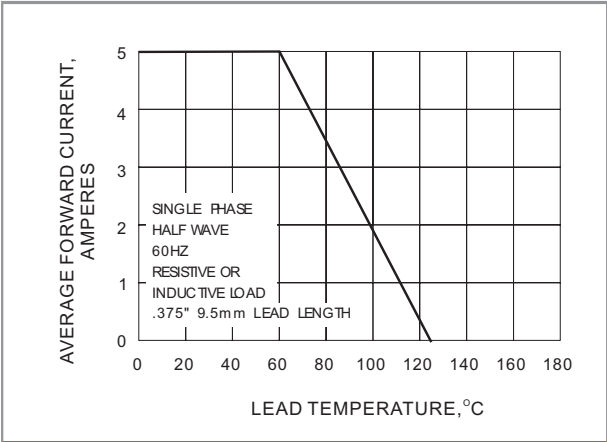


Fig. 1- FORWARD CURRENT DERATING CURVE

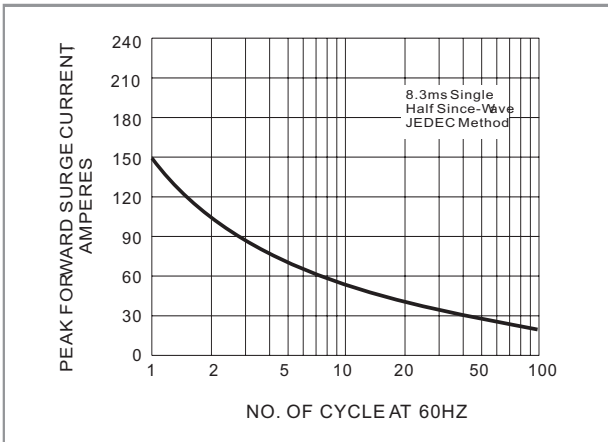


Fig. 2- TMAXIMUM NON - REPETITIVE SURGE CURRENT

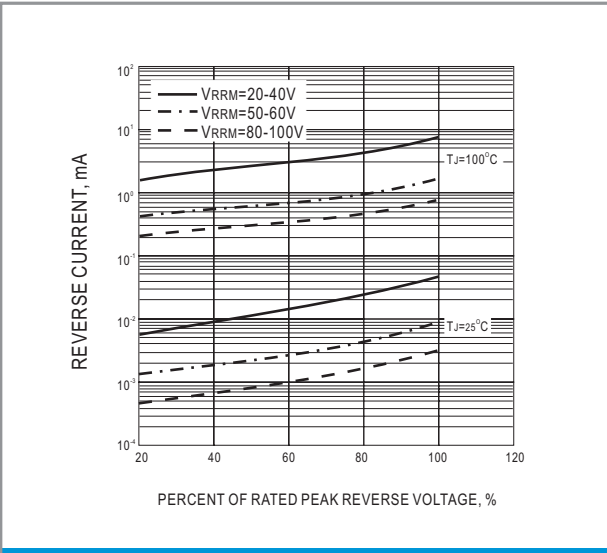


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

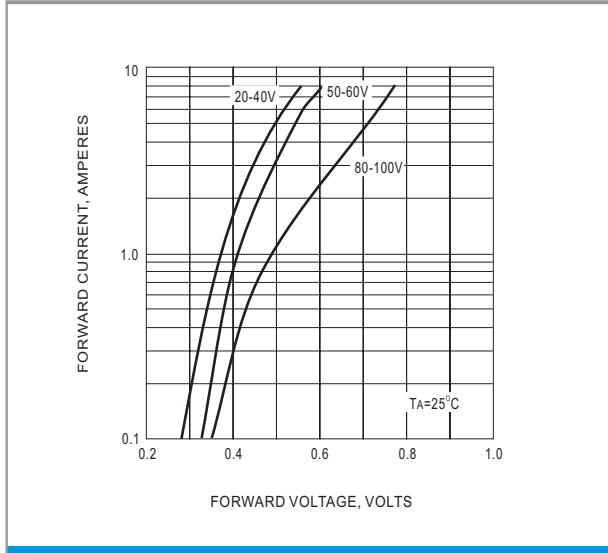


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC