



SB5150 THRU SB5200

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 to 200 Volts Forward Current - 5.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

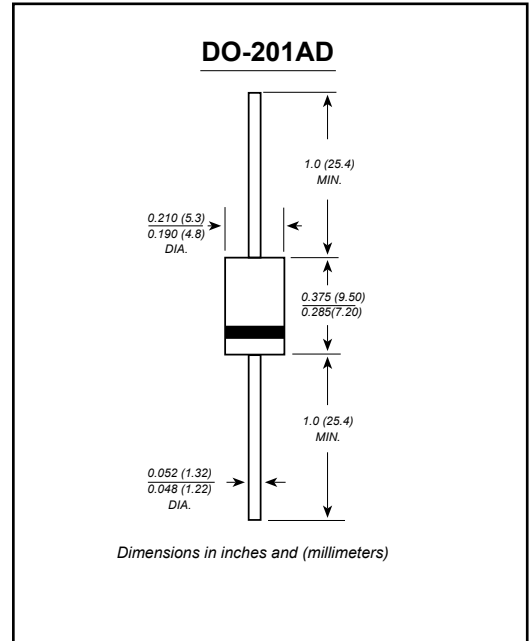
Case: JEDEC DO-201AD molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04 ounce, 1.10 grams



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	SB5150	SB5200	Unit
Peak Repetitive Reverse Voltage	VRRM	150	200	V
Working Peak Reverse Voltage	VRWM			
DC Blocking Voltage	VR			
RMS Reverse Voltage	VR(RMS)	105	140	V
Average Rectified Output Current @ $T_C = 75^\circ\text{C}$	IO	5.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	80		A
Forward Voltage @ $I_F = 5.0\text{A}$	VFM	0.92		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	IRM	1.0 5.0		mA
Typical Junction Capacitance (Note 1)	Cj	250		pF
Operating and Storage Temperature Range	Tj, TSTG	-65 to +150		°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

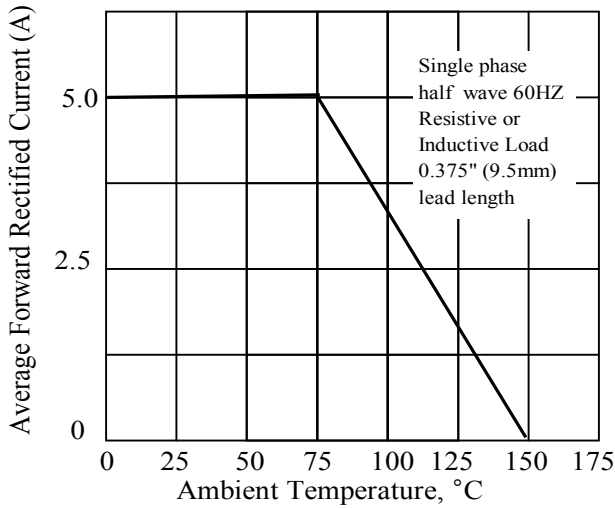


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

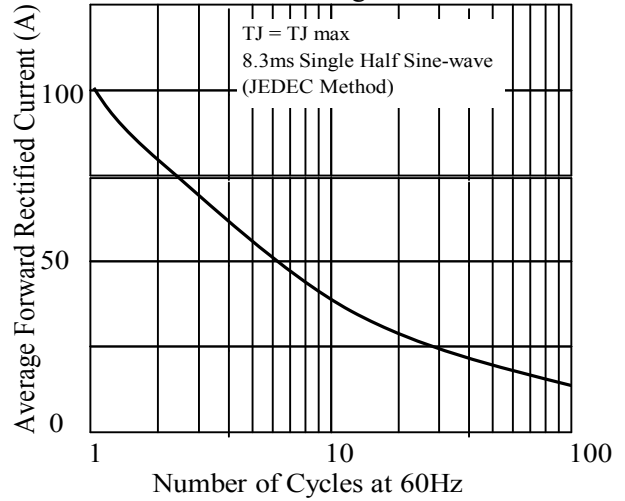


Fig. 3. Typical Instantaneous Forward Characteristics

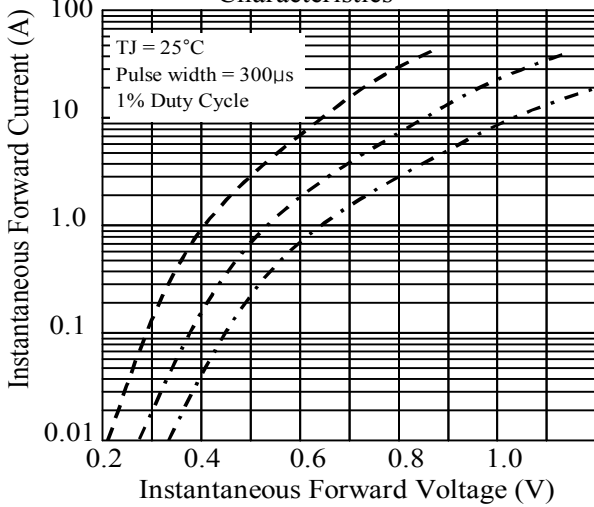


Fig. 4. Typical Reverse Characteristics

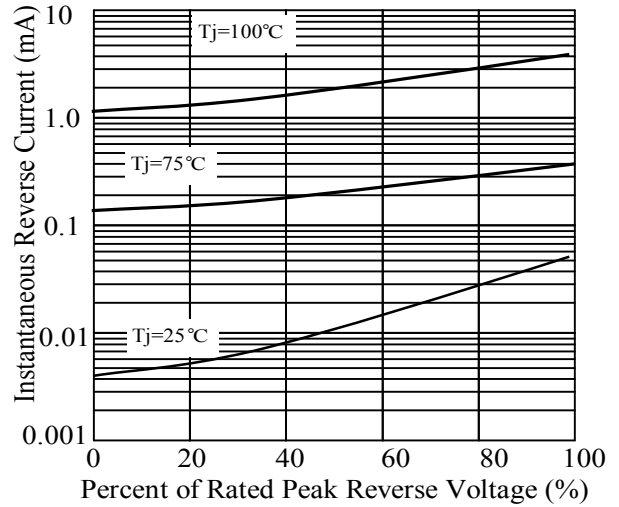


Fig. 5. typical transient thermal impedance

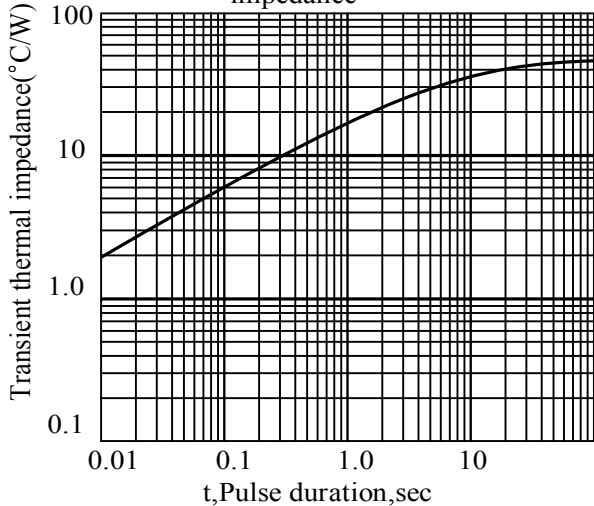


Fig. 6. Typical Junction Capacitance

