



SB820 THRU SB8200

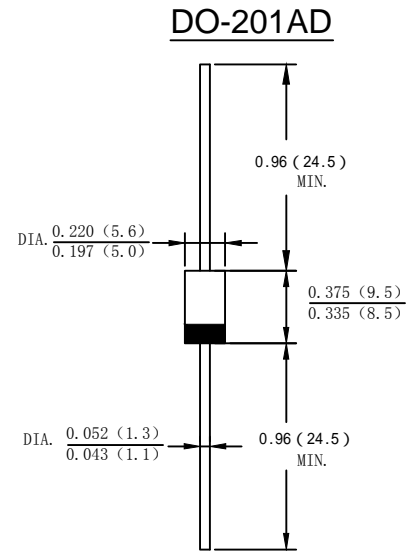
8.0 AMP. Schottky Barrier Rectifiers

Features

- Low power loss, high efficiency.
- High current capability.
- High reliability
- High surge current capability.
- Plastic package has Underwriters Laboratory Plammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound
- For use in low voltage, high frequency inverters free wheeling and polarity protection applications

Mechanical Data

- Case: Molded plastic DO-201AD
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	SB 820	SB 830	SB 840	SB 845	SB 850	SB 860	SB 880	SB 8100	SB 8150	SB 8200	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	80	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	50	60	80	100	150	200	V	
Average Rectified Output Current (Note 1) @ $T_A=95^\circ\text{C}$	I_o	8.0										A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150										A	
Forward Voltage @ $I_F=8.0\text{A}$	V_{FM}	0.55			0.70			0.85	0.92			V	
Peak Reverse Current @ $T_A=25^\circ\text{C}$	I_r	0.3						0.05					mA
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$		10						5					
Typical Junction Capacitance	C_J	450										pF	
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	75.0										$^\circ\text{C}/\text{W}$	
Operating Temperature Range	T_J	-55 to + 150										$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 to + 150										$^\circ\text{C}$	

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



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Fig. 1-FORWARD CURRENT DERATING CURVE

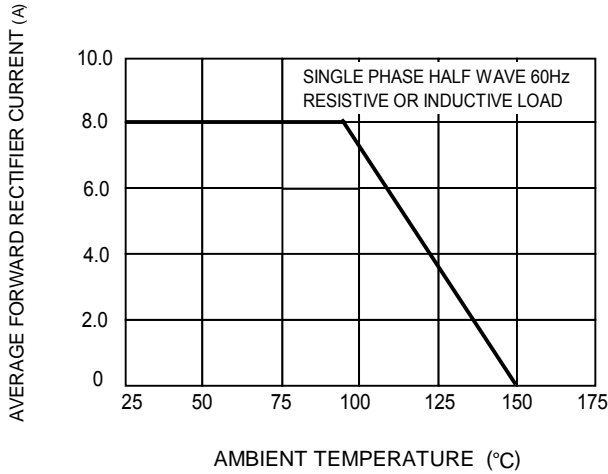


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

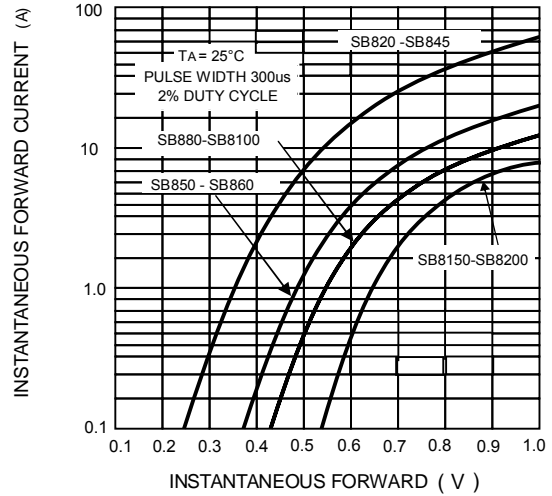


Fig. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

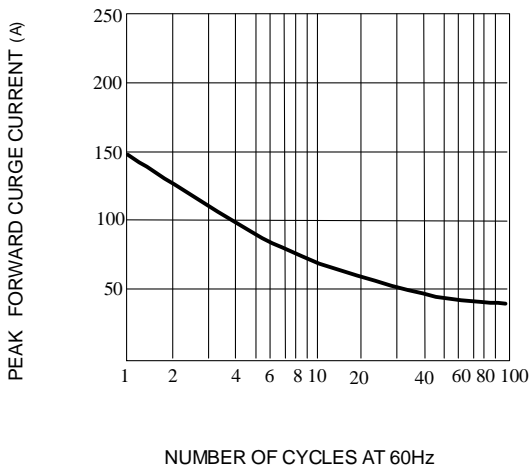


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

