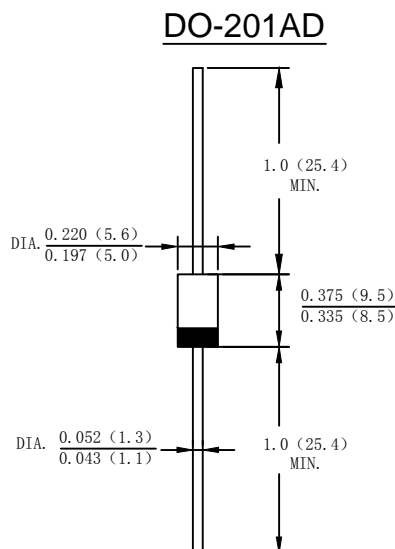


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- Guard ring for overvoltage protection
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- High surge capability

Mechanical Data

- Case: Moeded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For Rohs/Lead Free Version



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 520	SB 530	SB 540	SB 550	SB 560	SB 580	SB 5100	SB 5150	SB 5200	SB 5250	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	250	V	
Average Rectified Output Current (Note 1) @ $T_A=95^\circ\text{C}$	I_o	5.0										A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120										A	
Forward Voltage @ $I_F=5.0\text{A}$	V_{FM}	0.55		0.7		0.85		0.92		0.95		V	
Peak Reverse Current @ $T_A=25^\circ\text{C}$	I_R	0.2					0.05						mA
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$		10.0					5.0						
Typical Junction Capacitance (Note 2)	C_J	500				350							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	25										$^\circ\text{C}/\text{W}$	
Operating Temperature Range	T_J	-55 to + 150										$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-55 to + 150										$^\circ\text{C}$	

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

FIG. 1 - FORWARD CURRENT DERATING CURVE

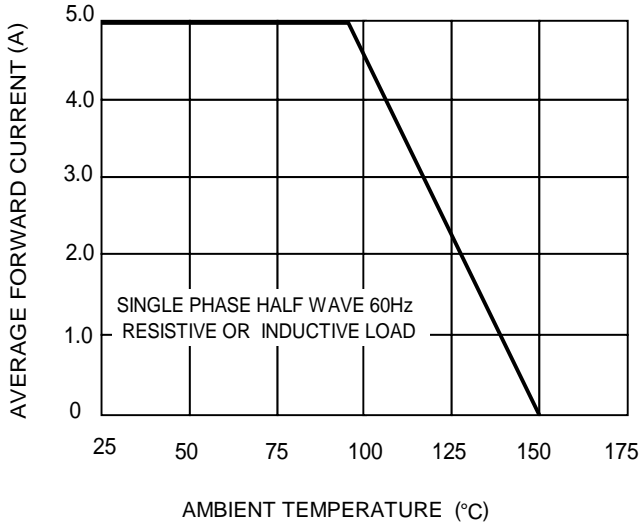


FIG.2-TYPICAL FORWARD CHARACTERISTICS

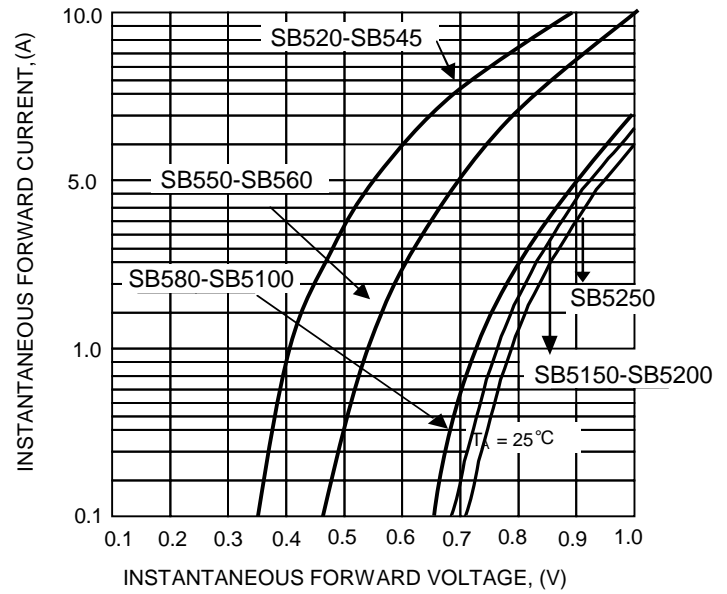


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

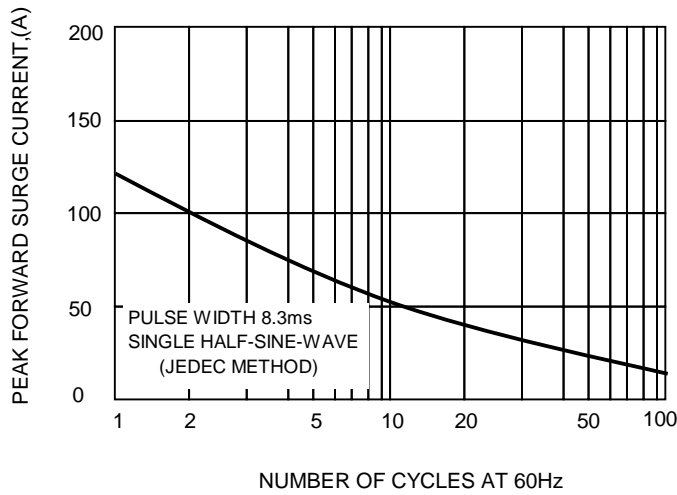


FIG.4 TYPICAL JUNCTION CAPACITANCE

