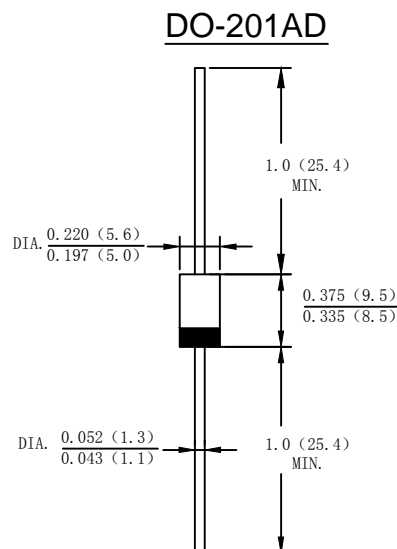


### Features

- 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 520A	SB 530A	SB 540A	SB 550A	SB 560A	SB 580A	SB 5100A	SB 5150A	SB 5200A	SB 5250A	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)	$I_o$	5.0										A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150										A
Forward Voltage @ $I_F=5.0A$	$V_{FM}$	0.50		0.67		0.8		0.90		0.92		V
Peak Reverse Current @ $T_A=25^\circ C$	$I_R$	0.2					0.05					mA
At Rated DC Blocking Voltage @ $T_A=100^\circ C$		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										$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to + 150										$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to + 150										$^\circ C$

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

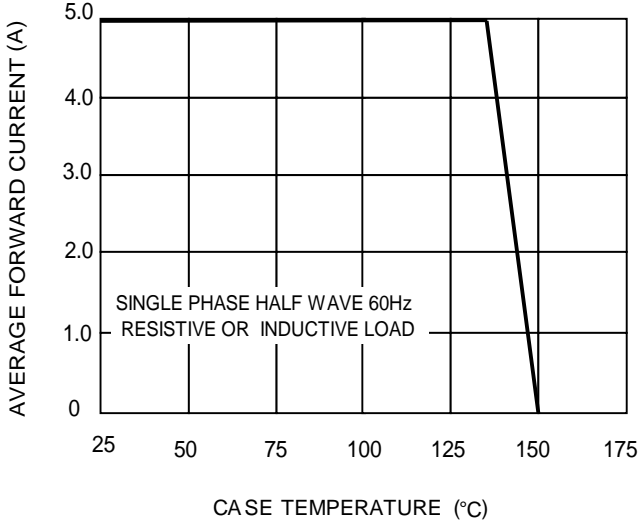


FIG.2-TYPICAL FORWARD CHARACTERISTICS

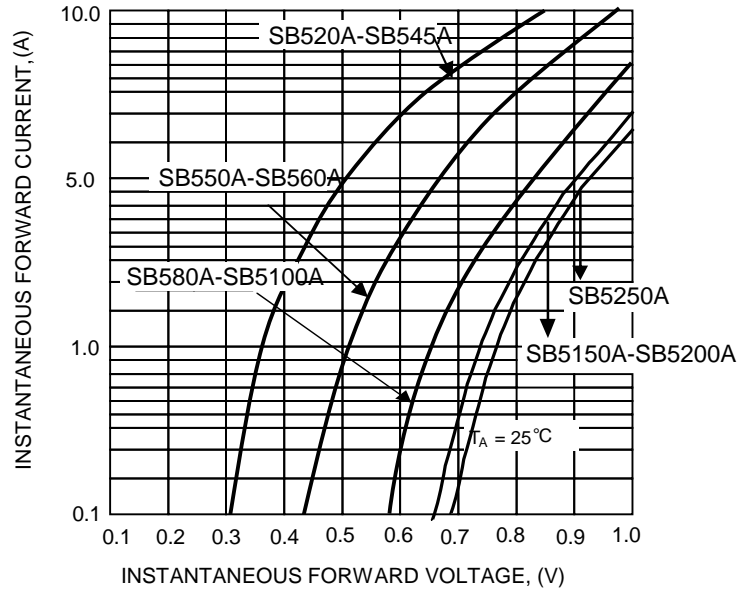


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

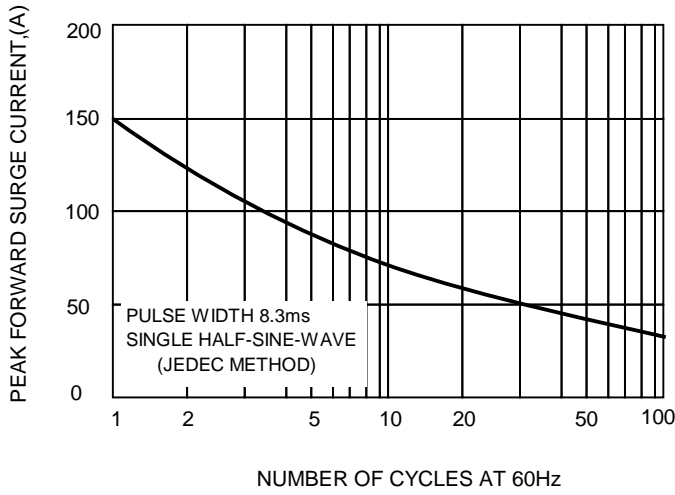


FIG.4 TYPICAL JUNCTION CAPACITANCE

