



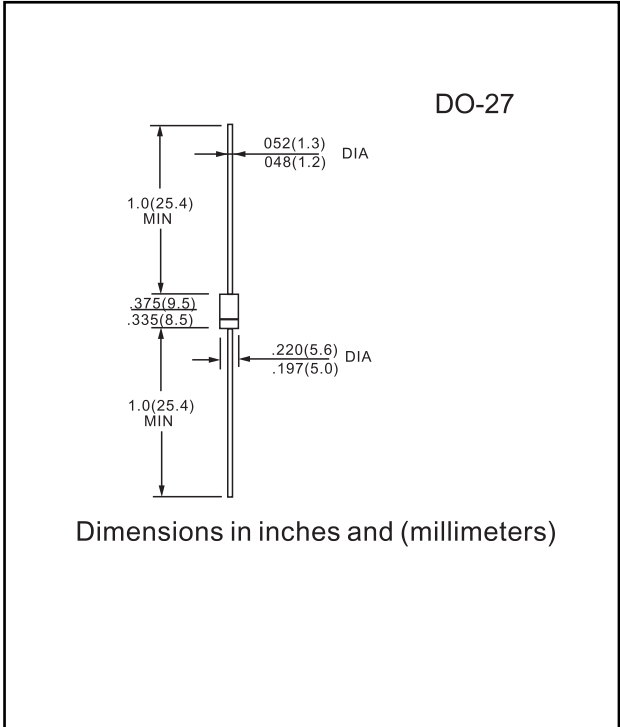
SB320-SB3200  
20V-200V  
3.0A

**FEATURES**

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free plastic in a DO-201AD package
- High current operation 3.0 ampere at  $T_L=75\text{ }^\circ\text{C}$
- Exceeds environmental standards of MIL-S-19500/228

**MECHANICAL DATA**

Case: Molded plastic, DO-201AD  
 Terminals: Axial leads, solderable per MIL-STD-202, Method 208  
 Polarity: Color band denotes cathode  
 Mounting Position: Any  
 Weight: 0.04 ounce, 1.1 grams



**Absolute Maximum Ratings**  $T_A = 25^\circ\text{C}$  unless otherwise noted

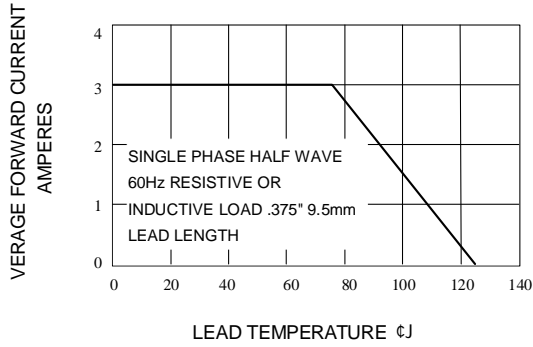
Parameter	Symbol	SB 320	SB 330	SB 340	SB 350	SB 360	SB 380	SB 3100	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum DC Blocking Voltage	$V_R$	20	30	40	50	60	80	100	V
Maximum Average Forward Rectifier Current. (0.375" Lead Length @ $T_A=75^\circ\text{C}$ )	$I_{F(AV)}$	3.0							A
Non-repetitive Peak Forward Surge Current. (8.3mS Single Half Sine-wave)	$I_{FSM}$	80							A
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125							$^\circ\text{C}$
Thermal Resistance (Note 1) (Junction to Ambient)	$R_{\theta JA}$	30							$^\circ\text{C/W}$

**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Parameter	Symbol	SB 320	SB 330	SB 340	SB 350	SB 360	SB 380	SB 3100	Units	
Maximum D.C Reverse Current At Rated D.C Blocking Voltage @ $T_A=25^\circ\text{C}$ @ $T_A=100^\circ\text{C}$	$I_R$					1.0 30.0				mA
Forward Voltage @3A	$V_F$	0.550			0.750		0.850		V	
Total Capacitance @VR=4V, f=1MHz	$C_T$	180							pF	

**NOTE:** (1) Thermal resistance from junction to ambient at 0.375" lead length, vertical P.C. board mounted

**RATING AND CHARACTERISTIC CURVES**  
**SB320 THRU SB3100**



ig. 1-FORWARD CURRENT DERATING CURVE

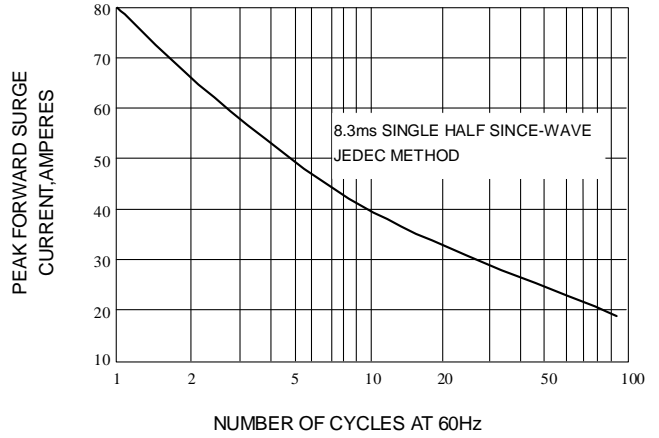


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

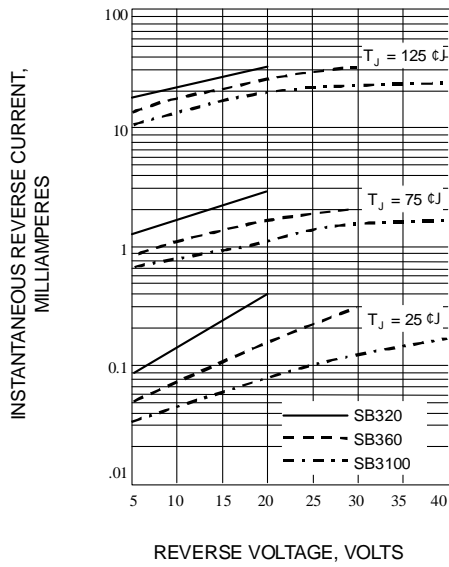


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

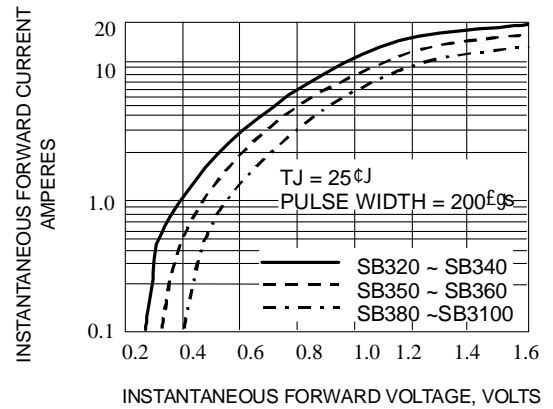


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

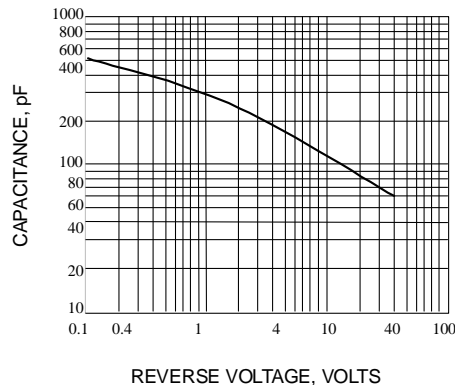


Fig. 5-TYPICAL JUNCTION CAPACITANCE