



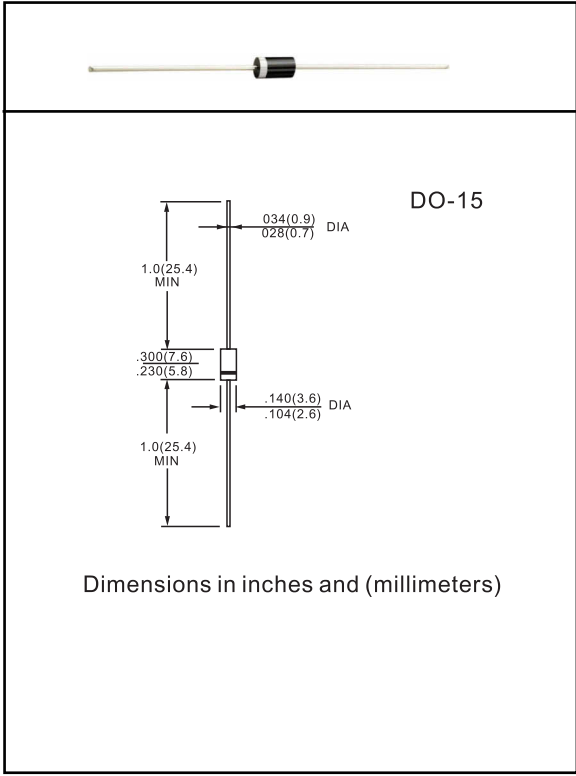
SB220-SB2100  
20V-200V  
2.0A

**FEATURES**

- \* Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- \* Metal silicon junction, majority carrier conduction
- \* Guardring for overvoltage protection
- \* Low power loss, high efficiency
- \* High current capability, low forward voltage drop
- \* High surge capability
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* High temperature soldering guaranteed :  
260°C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**MECHANICAL DATA**

**Case :** JEDEC DO-204AC Molded plastic body  
**Terminals :** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity :** Color band denotes cathode end  
**Mounting Position :** Any  
**Weight :** 0.015 ounce, 0.4 gram



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

Parameter	Symbol	SB 220	SB 230	SB 240	SB 250	SB 260	SB 280	SB 2100	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 @ $T_A=75^\circ\text{C}$ )	$I_{F(AV)}$	2.0							A
Non-repetitive Peak Forward Surge Current. (8.3mS Single Half Sine-wave)	$I_{FSM}$	50							A
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125							$^\circ\text{C}$
Thermal Resistance (Junction to Ambient) (Note 1)	$R_{\theta JA}$	45							$^\circ\text{C/W}$

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

Parameter	Symbol	SB 220	SB 230	SB 240	SB 250	SB 260	SB 280	SB 2100	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 10.0				mA
Forward Voltage @2A	$V_F$		0.500			0.700		0.850	V
Total Capacitance @ $V_R=4V, f=1\text{MHz}$	$C_T$				170				pF

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

FIG.1 - FORWARD CURRENT DERATING CURVE

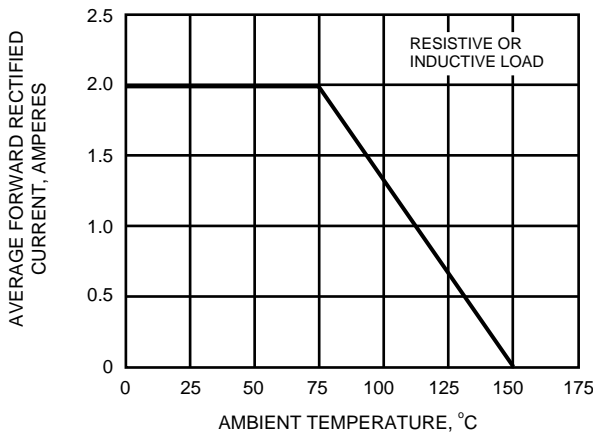


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

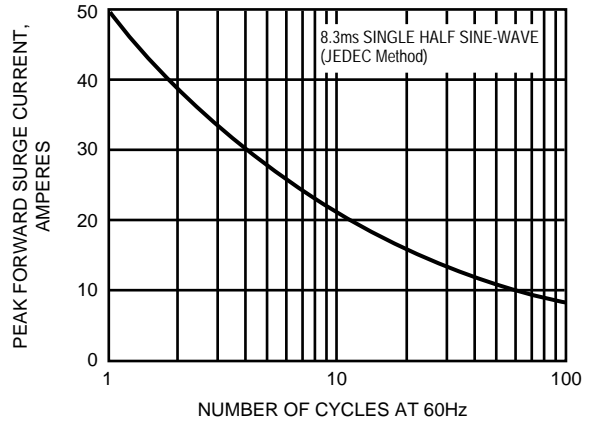


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

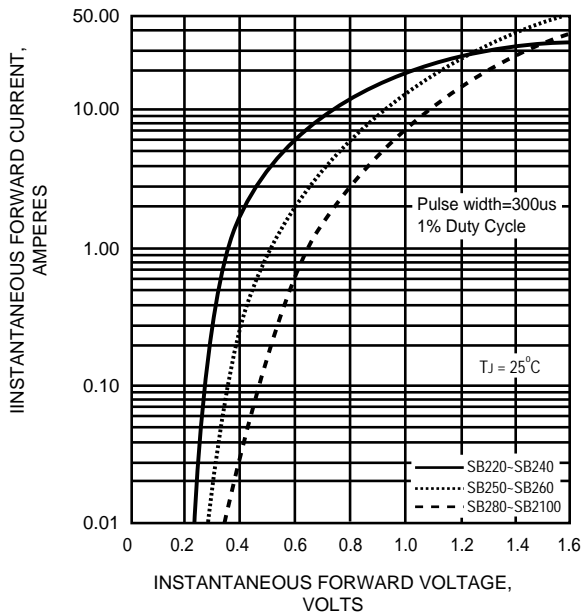


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

