



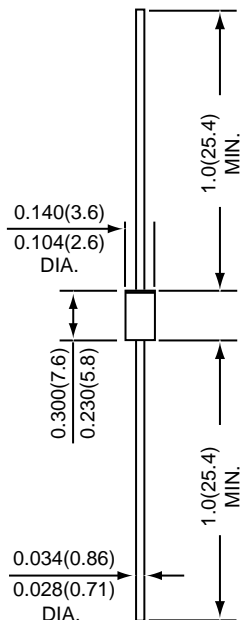
# SB220 THRU SB2100

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 2.0 Amperes

**DO-204AC**



\*Dimensions in inches and (millimeters)



### 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

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25°C ambient temperature unless otherwise specified.                                  | SYMBOLS | SB220       | SB230 | SB240 | SB250 | SB260 | SB280 | SB2100 | UNITS  |
|--|---------|-------------|-------|-------|-------|-------|-------|--------|--------|
| Maximum repetitive peak reverse voltage  | VRRM    | 20          | 30    | 40    | 50    | 60    | 80    | 100    | Volts  |
| Maximum RMS voltage  | VRMS    | 14          | 21    | 28    | 35    | 42    | 56    | 70     | Volts  |
| Maximum DC blocking voltage  | VDC     | 20          | 30    | 40    | 50    | 60    | 80    | 100    | Volts  |
| Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)                 | I(AV)   | 2.0         |       |       |       |       |       |        | Amps   |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM    | 50          |       |       |       |       |       |        | Amps   |
| Maximum instantaneous forward voltage at 2.0 A   | VF      | 0.55        |       | 0.70  |       | 0.85  |       | Volts  |        |
| Maximum instantaneous reverse current at rated DC blocking voltage<br>TA=25°C<br>TA=100°C        | IR      | 1.0<br>10.0 |       |       |       |       |       |        | mA     |
| Typical thermal resistance ( NOTE )  | R θJA   | 35          |       |       |       |       |       |        | °C / W |
| Operating junction and storage temperature range   | TJ,TSTG | -50 to +150 |       |       |       |       |       |        | °C     |

NOTES : Thermal resistance junction to lead P.C.B. mounted 0.375" (9.5mm) lead length.

# RATINGS AND CHARACTERISTIC CURVES SB220 THRU SB2100

FIG.1 - FORWARD CURRENT DERATING CURVE

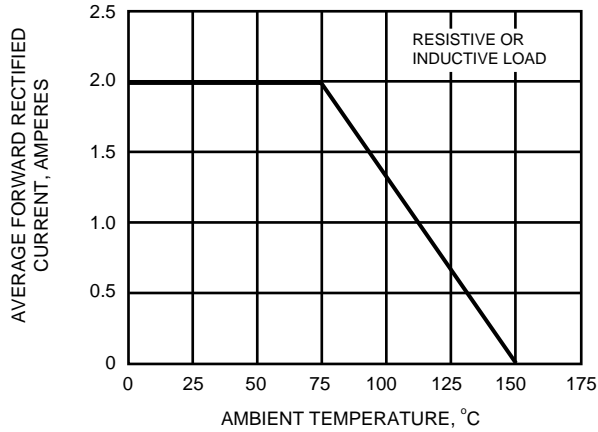


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

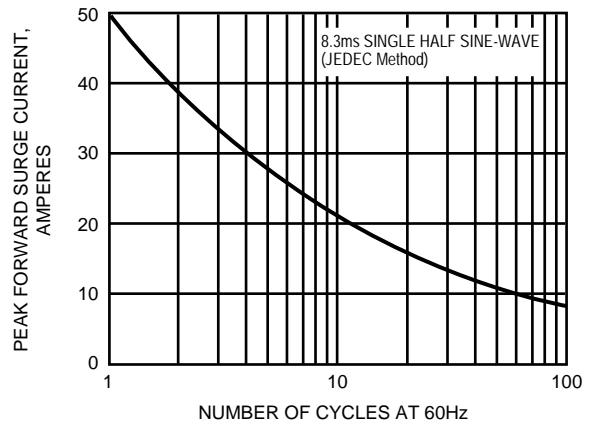


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

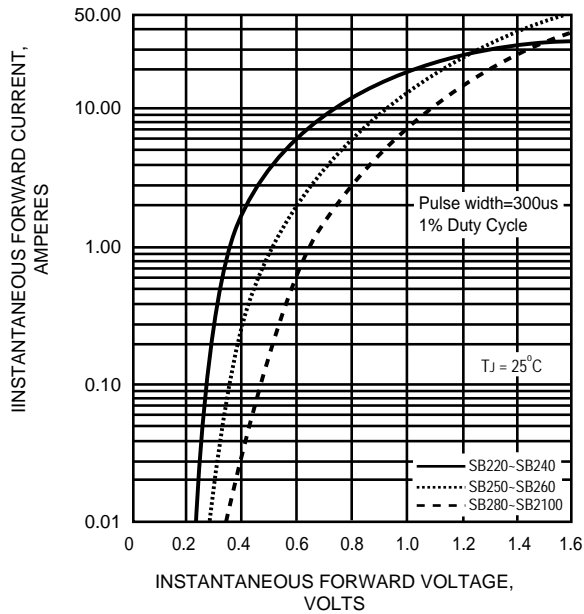


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

