

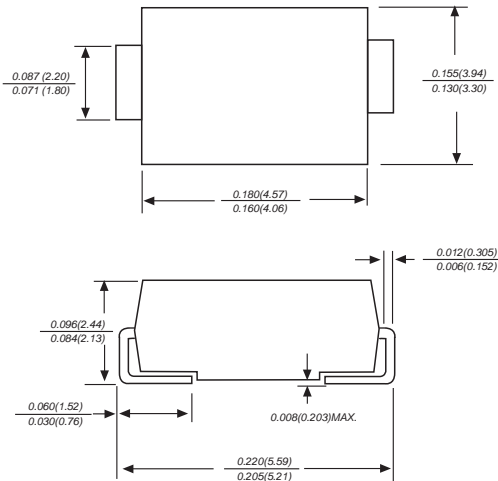


# B520B THRU B5200B

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Amperes

### DO-214AA/SMB



Dimensions in inches and (millimeters)

### FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0  
 For surface mounted applications  
 Low reverse leakage  
 Built-in strain relief, ideal for automated placement  
 High forward surge current capability  
 High temperature soldering guaranteed:  
 250 C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** :0.003 ounce, 0.093 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

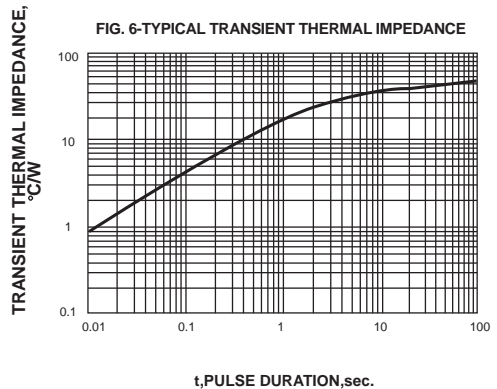
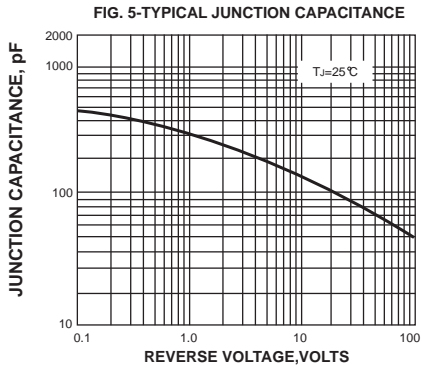
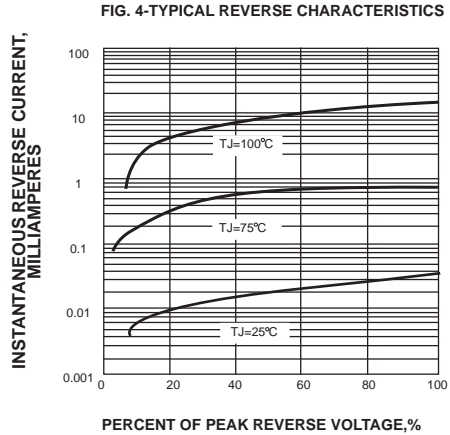
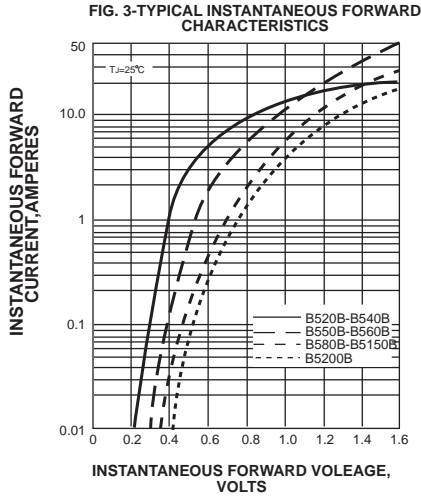
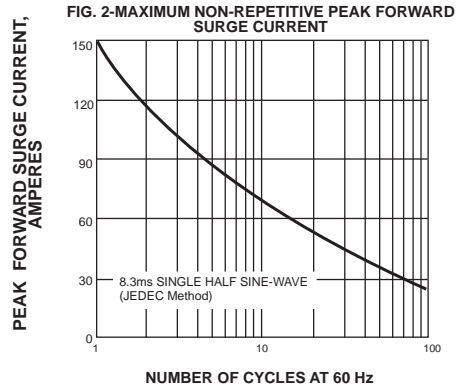
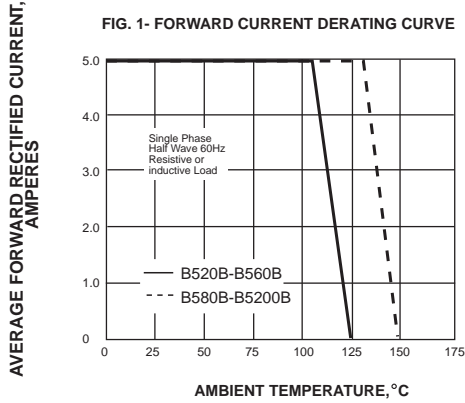
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Catalog Number  | SYMBOLS         | B520B       | B530B | B540B | B550B | B560B | B580B       | B5A0B | B5150B | B5200B | UNITS                     |                  |
|---|-----------------|-------------|-------|-------|-------|-------|-------------|-------|--------|--------|---------------------------|------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 20          | 30    | 40    | 50    | 60    | 80          | 100   | 150    | 200    | VOLTS                     |                  |
| Maximum RMS voltage   | $V_{RMS}$       | 14          | 21    | 28    | 35    | 42    | 56          | 70    | 105    | 150    | VOLTS                     |                  |
| Maximum DC blocking voltage   | $V_{DC}$        | 20          | 30    | 40    | 50    | 60    | 80          | 100   | 150    | 200    | VOLTS                     |                  |
| Maximum average forward rectified current at $T_L$ (see fig.1)  | $I_{AV}$        | 5.0         |       |       |       |       |             |       |        |        | Amps                      |                  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)             | $I_{FSM}$       | 150.0       |       |       |       |       |             |       |        |        | Amps                      |                  |
| Maximum instantaneous forward voltage at 5.0A   | $V_F$           | 0.55        |       | 0.70  |       | 0.85  |             | 0.95  |        | Volts  |                           |                  |
| Maximum DC reverse current<br>$T_A=25^\circ\text{C}$<br>at rated DC blocking voltage<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5         |       |       |       |       |             | 0.2   |        | mA     |                           |                  |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 200         |       |       |       |       |             |       |        |        | pF                        |                  |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 50.0        |       |       |       |       |             |       |        |        | $^\circ\text{C}/\text{W}$ |                  |
| Operating junction temperature range  | $T_J$           | -50 to +125 |       |       |       |       | -50 to +150 |       |        |        |                           | $^\circ\text{C}$ |
| Storage temperature range   | $T_{STG}$       | -50 to +150 |       |       |       |       |             |       |        |        | $^\circ\text{C}$          |                  |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



# RATINGS AND CHARACTERISTIC CURVES B520B THRU B5200B



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)