



# SK32B THRU SK310B

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts    Forward Current - 3.0 Ampere

### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- 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

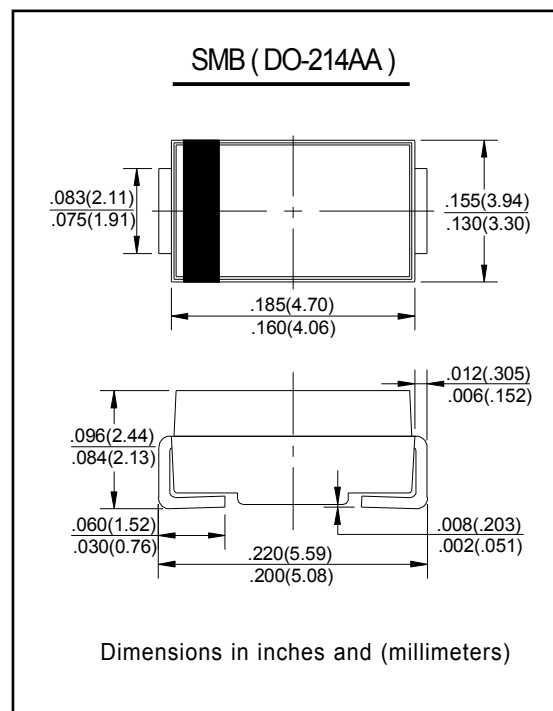
**Case:** JEDEC SMB(DO-214AA) molded plastic body

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.005 ounce, 0.138 grams



### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

| Characteristic                                                                                                        | Symbol                                                 | SK32B       | SK33B | SK34B | SK35B | SK36B | SK38B | SK39B | SK310B | Unit |    |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|-------|-------|-------|-------|-------|-------|--------|------|----|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 20          | 30    | 40    | 50    | 60    | 80    | 90    | 100    | V    |    |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>                                    | 14          | 21    | 28    | 35    | 42    | 56    | 64    | 71     | V    |    |
| Average Rectified Output Current @T <sub>L</sub> = 75°C                                                               | I <sub>O</sub>                                         | 3.0         |       |       |       |       |       |       |        | A    |    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 70          |       |       |       |       |       |       |        | A    |    |
| Forward Voltage @I <sub>F</sub> = 3.0A                                                                                | V <sub>FM</sub>                                        | 0.50        |       |       | 0.70  |       | 0.85  |       |        | V    |    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                   | I <sub>RM</sub>                                        | 0.5<br>10   |       |       |       |       |       |       |        |      | mA |
| Typical Thermal Resistance (Note 1)                                                                                   | R <sub>θJL</sub><br>R <sub>θJA</sub>                   | 17<br>75    |       |       |       |       |       |       |        |      |    |
| Operating Temperature Range                                                                                           | T <sub>j</sub>                                         | -65 to +125 |       |       |       |       |       |       |        | °C   |    |
| Storage Temperature Range                                                                                             | T <sub>STG</sub>                                       | -65 to +150 |       |       |       |       |       |       |        | °C   |    |

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.



# SK32B THRU SK310B

## RATINGS AND CHARACTERISTIC CURVES

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

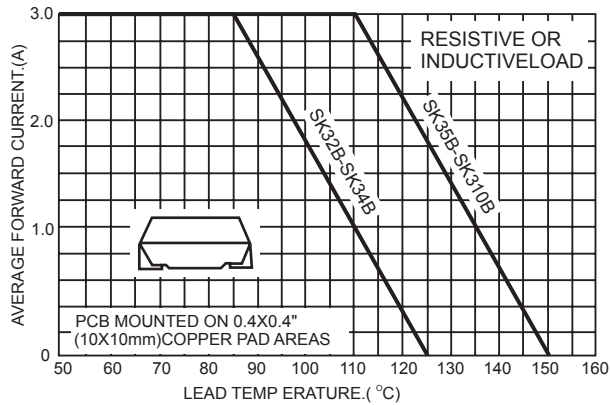


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

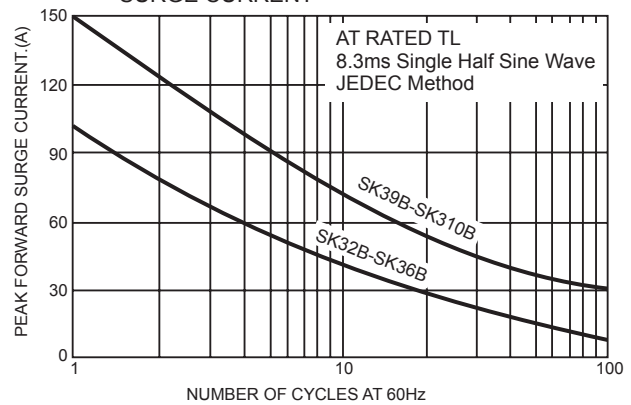


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

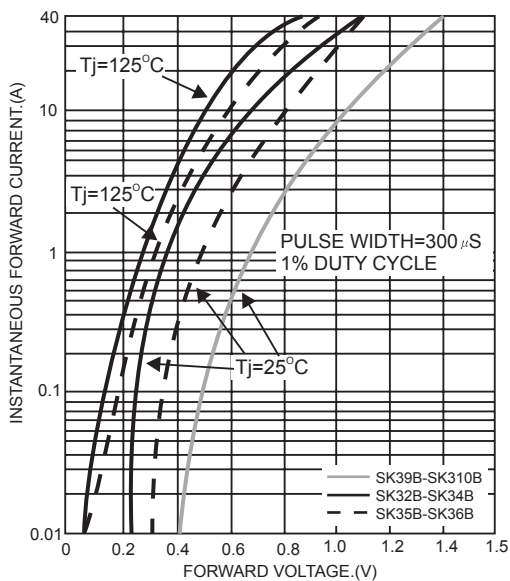


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

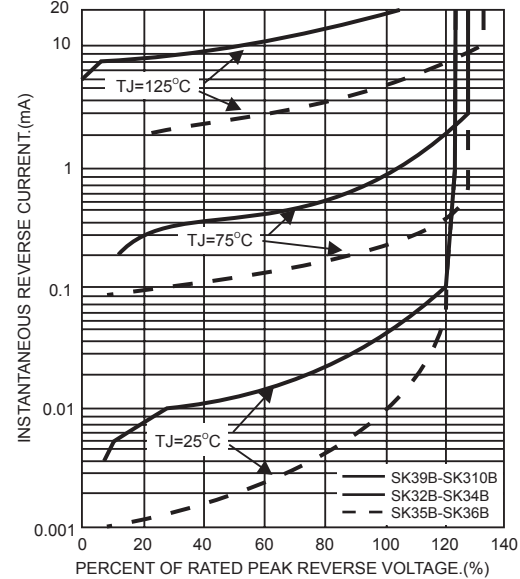


FIG. 5- TYPICAL JUNCTION CAPACITANCE

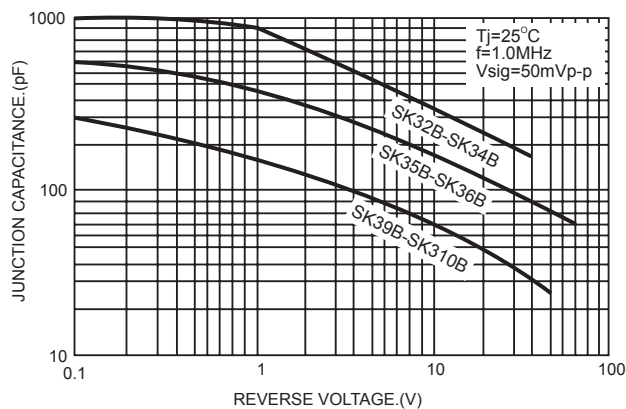


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

