

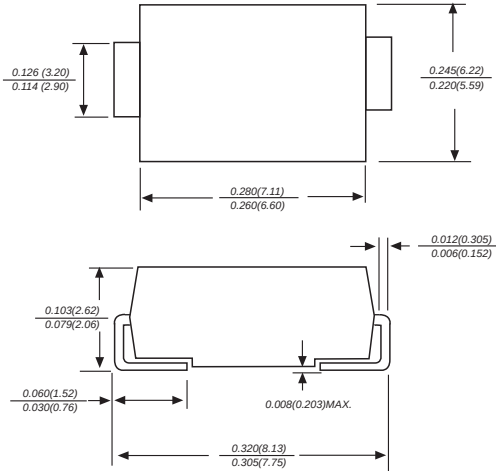


# SK32 THRU SK3200

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 3.0 Amperes

### DO-214AB/SMC



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-214AB molded plastic body  
**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.007 ounce, 0.25grams

### 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%.

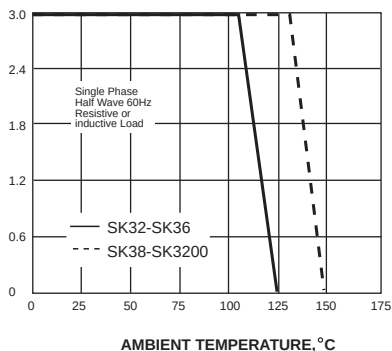
| Catalog Number                                                                                              | SYMBOLS           | SK32        | SK33 | SK34 | SK35 | SK36 | SK38        | SK310 | SK3150 | SK3200 | UNITS |    |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|------|------|------|------|-------------|-------|--------|--------|-------|----|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>  | 20          | 30   | 40   | 50   | 60   | 80          | 100   | 150    | 200    | VOLTS |    |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>  | 14          | 21   | 28   | 35   | 42   | 56          | 70    | 105    | 150    | VOLTS |    |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>   | 20          | 30   | 40   | 50   | 60   | 80          | 100   | 150    | 200    | VOLTS |    |
| Maximum average forward rectified current at T <sub>L</sub> (see fig.1)                                     | I <sub>(AV)</sub> | 3.0         |      |      |      |      |             |       |        |        | Amps  |    |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)         | I <sub>FSM</sub>  | 100.0       |      |      |      |      |             |       |        |        | Amps  |    |
| Maximum instantaneous forward voltage at 3.0A                                                               | V <sub>F</sub>    | 0.55        |      |      | 0.70 |      | 0.85        |       |        | 0.95   | Volts |    |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.5         |      |      |      |      |             |       | 0.2    |        | mA    |    |
|                                                                                                             |                   | 20          |      |      |      | 10   |             | 2.0   |        |        |       |    |
| Typical junction capacitance (NOTE 1)                                                                       | C <sub>J</sub>    | 500         |      |      | 300  |      |             |       |        |        |       | pF |
| Typical thermal resistance (NOTE 2)                                                                         | R <sub>θJA</sub>  | 55.0        |      |      |      |      |             |       |        |        | °C/W  |    |
| Operating junction temperature range                                                                        | T <sub>J</sub>    | -50 to +125 |      |      |      |      | -50 to +150 |       |        |        | °C    |    |
| Storage temperature range                                                                                   | T <sub>STG</sub>  | -50 to +150 |      |      |      |      |             |       |        |        | °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 SK32 THRU SK3200

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

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

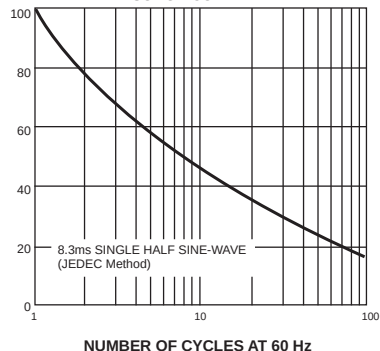
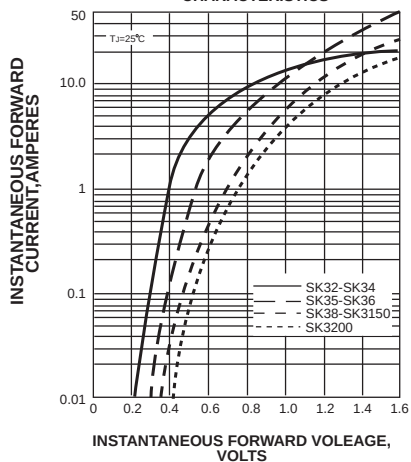


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

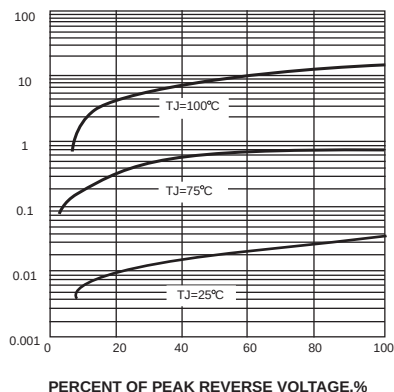
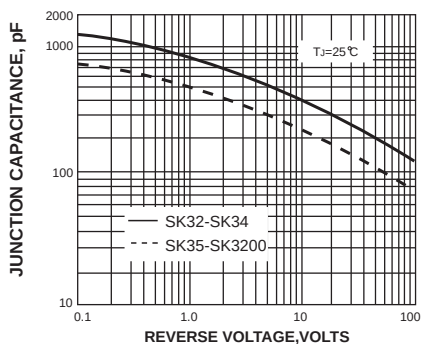


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
 $^{\circ}\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

