

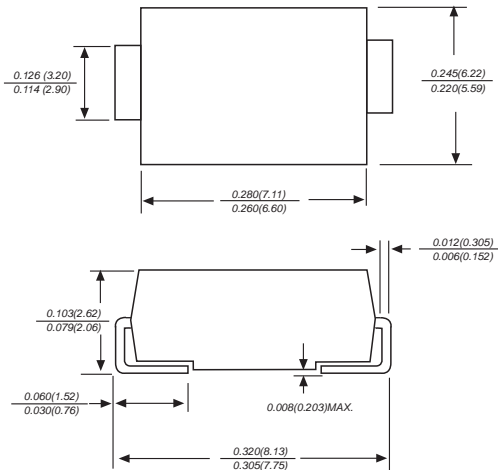


# SK32 THRU SK3200

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

### DO-214AB/SMC



### 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%.

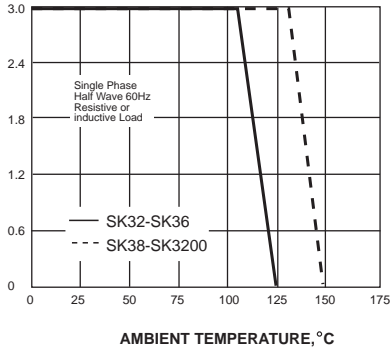
| MDD Catalog Number  | SYMBOLS         | SK32        | SK33 | SK34 | SK35 | SK36 | SK38        | SK310 | SK3150 | SK3200 | UNITS |
|---|-----------------|-------------|------|------|------|------|-------------|-------|--------|--------|-------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 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 TL (see fig.1)   | $I_{AV}$        | 3.0         |      |      |      |      |             |       |        |        | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)             | $I_{FSM}$       | 100.0       |      |      |      |      |             |       |        |        | Amps  |
| Maximum instantaneous forward voltage at 3.0A   | $V_F$           | 0.55        |      | 0.70 |      | 0.85 |             | 0.95  |        | Volts  |       |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5         |      |      |      |      |             | 0.2   |        | mA     |       |
|   |                 | 20          |      |      | 10   |      | 2.0         |       |        |        |       |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 500         |      |      | 300  |      |             |       | pF     |        |       |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 55.0        |      |      |      |      |             |       |        |        | °C/W  |
| Operating junction temperature range  | $T_J$           | -50 to +125 |      |      |      |      | -50 to +150 |       |        |        | °C    |
| Storage temperature range   | $T_{STG}$       | -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

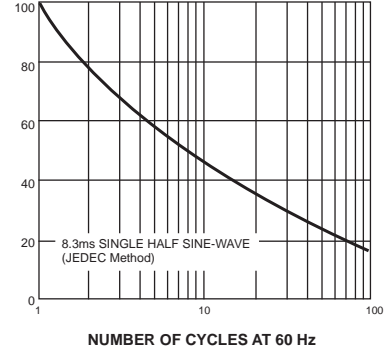
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



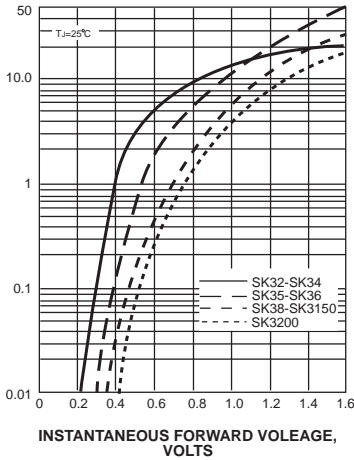
PEAK FORWARD SURGE CURRENT, AMPERES

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



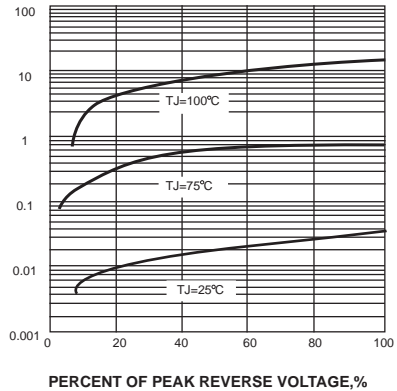
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



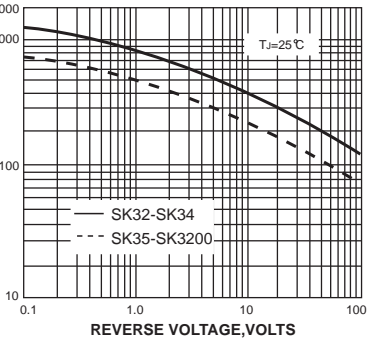
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

