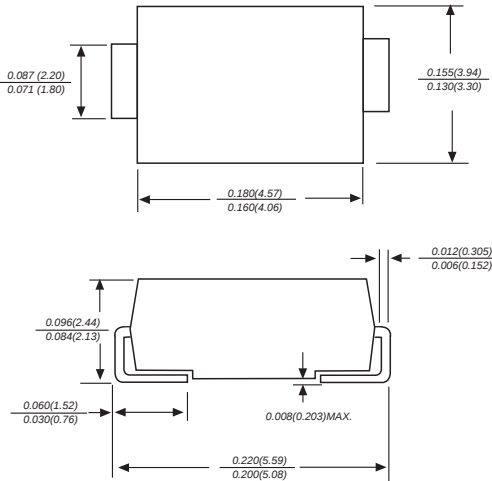


# SK315B THRU SK320B

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 to 200 Volts    Forward Current - 3.0 Amperes

### DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375"(9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body  
**Terminals:** leads 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%.

|                                                                                                             | SYMBOLS           | SK315B      | SK320B | UNITS |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|--------|-------|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>  | 150         | 200    | V     |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>  | 105         | 140    | V     |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>   | 150         | 200    | V     |
| Maximum average forward rectified current at T <sub>L</sub> (see fig.1)                                     | I <sub>(AV)</sub> | 3.0         |        | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load                        | I <sub>FSM</sub>  | 70.0        |        | A     |
| Maximum instantaneous forward voltage at 3.0A                                                               | V <sub>F</sub>    | 0.95        |        | V     |
| 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>    | 0.1         |        | mA    |
|                                                                                                             |                   | 2.0         |        |       |
| Typical junction capacitance (NOTE 1)                                                                       | C <sub>J</sub>    | 200         |        | pF    |
| Typical thermal resistance (NOTE 2)                                                                         | R <sub>θJA</sub>  | 68.0        |        | °C/W  |
| Operating junction temperature range                                                                        | T <sub>J</sub>    | -55 to +150 |        | °C    |
| Storage temperature range                                                                                   | T <sub>STG</sub>  | -55 to +150 |        | °C    |

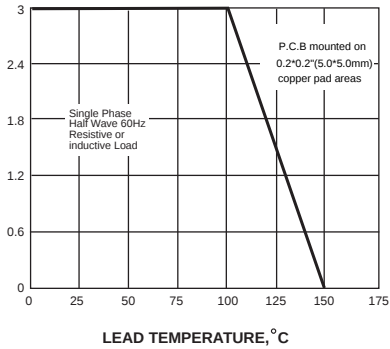
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES SK315B THRU SK320B

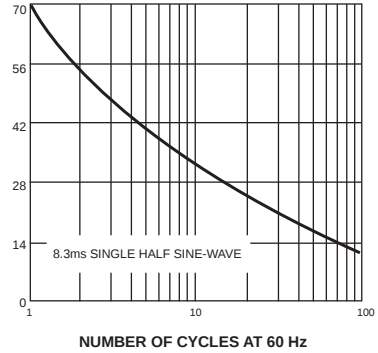
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



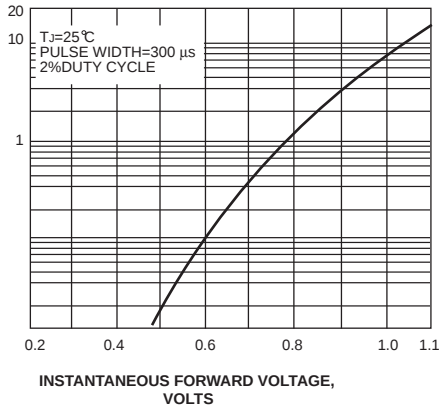
PEAK FORWARD SURGE CURRENT,  
AMPERES

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



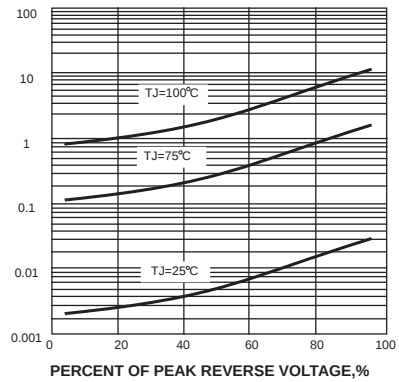
INSTANTANEOUS FORWARD  
CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



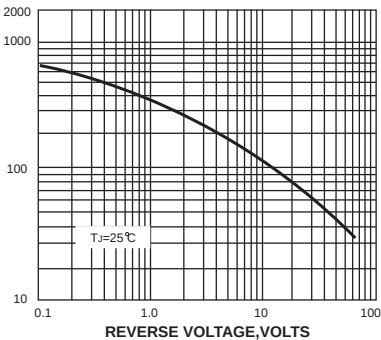
INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

