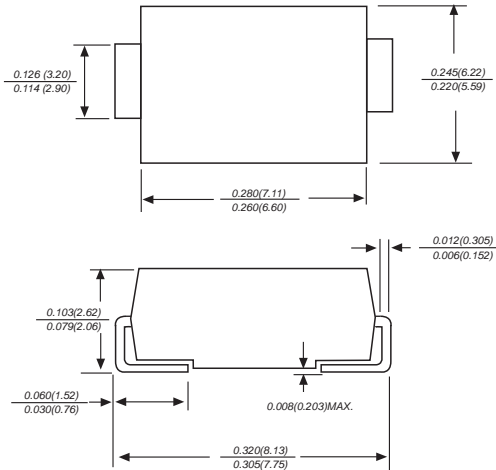


# SK515C THRU SK520C

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 to 200 Volts    Forward Current - 5.0 Amperes

### DO-214AB



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°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, 0.25 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%.

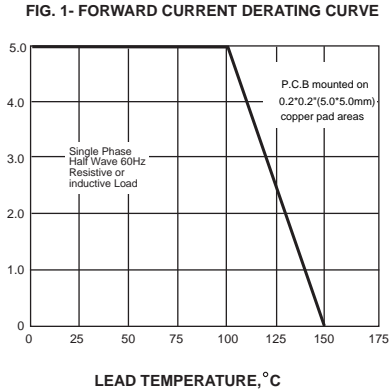
|   | SYMBOLS         | SK515C      | SK520C | UNITS |
|---|-----------------|-------------|--------|-------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 150         | 200    | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 105         | 140    | V     |
| Maximum DC blocking voltage   | $V_{DC}$        | 150         | 200    | V     |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length (see fig. 1)                          | $I_{AV}$        | 5.0         |        | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load                       | $I_{FSM}$       | 120.0       |        | A     |
| Maximum instantaneous forward voltage at 5.0A   | $V_F$           | 0.95        |        | V     |
| Maximum DC reverse current $T_A=25^{\circ}\text{C}$<br>at rated DC blocking voltage $T_A=100^{\circ}\text{C}$ | $I_R$           | 0.1<br>2.0  |        | mA    |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 200         |        | pF    |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 55.0        |        | °C/W  |
| Operating junction temperature range  | $T_J$           | -55 to +150 |        | °C    |
| Storage temperature range   | $T_{STG}$       | -55 to +150 |        | °C    |

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

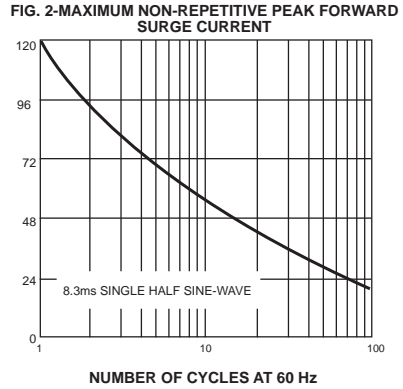
2. Thermal resistance from junction to ambient.

# RATINGS AND CHARACTERISTIC CURVES SK515C THRU SK520C

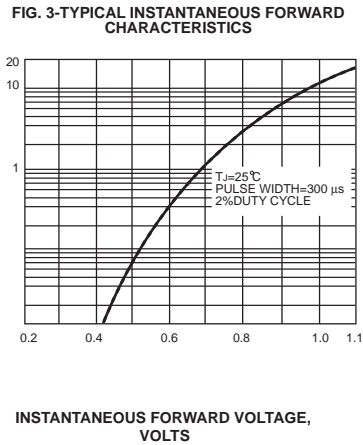
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES



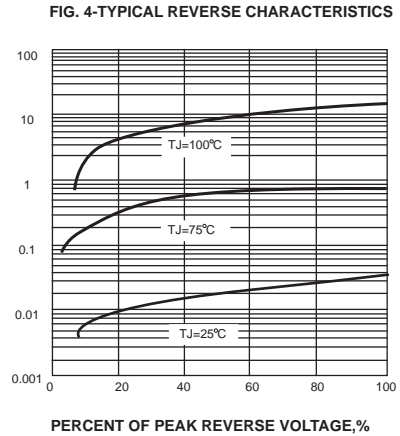
PEAK FORWARD SURGE CURRENT,  
AMPERES



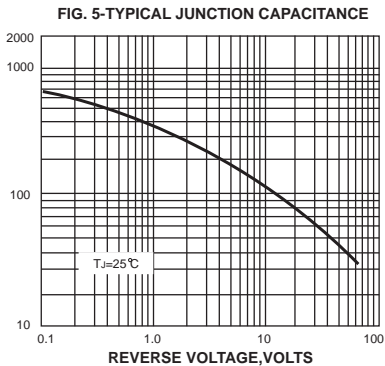
INSTANTANEOUS FORWARD  
CURRENT,AMPERES



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,  
°C/W

