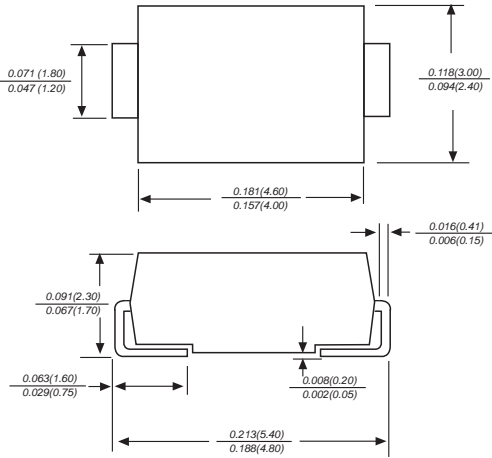


SS315A THRU SS320A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

DO-214AC



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-214AC molded plastic body

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.002 ounce, 0.07 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 | SS315A | SS320A | 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 0.375" (9.5mm) lead length (see fig. 1) | I_{AV} | 3.0 | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 70.0 | | A |
| Maximum instantaneous forward voltage at 3.0A | V_F | 0.95 | | V |
| Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$ | I_R | 0.1 2.0 | | mA |
| Typical junction capacitance (NOTE 1) | C_J | 200 | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 75.0 | | °C/W |
| Operating junction temperature range | T_J | -55 to +150 | | °C |
| Storage temperature range | T_{STG} | -55 to +150 | | °C |

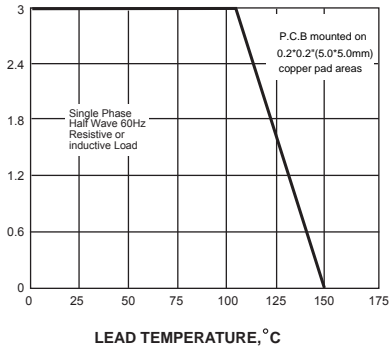
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

RATINGS AND CHARACTERISTIC CURVES SS315A THRU SS320A

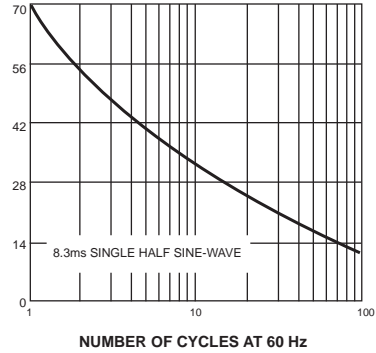
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



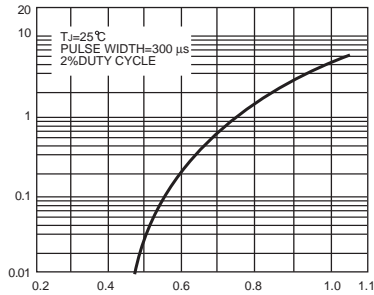
PEAK FORWARD SURGE CURRENT,
AMPERES

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



INSTANTANEOUS FORWARD
CURRENT,AMPERES

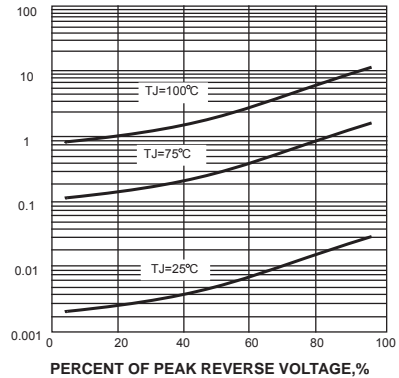
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE,
VOLTS

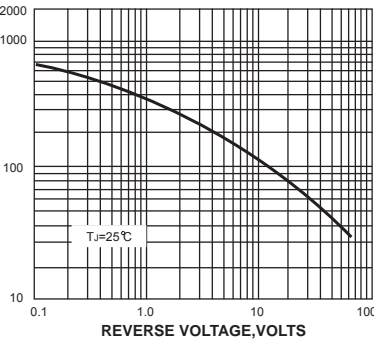
INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

