# SS52 THRU SS520

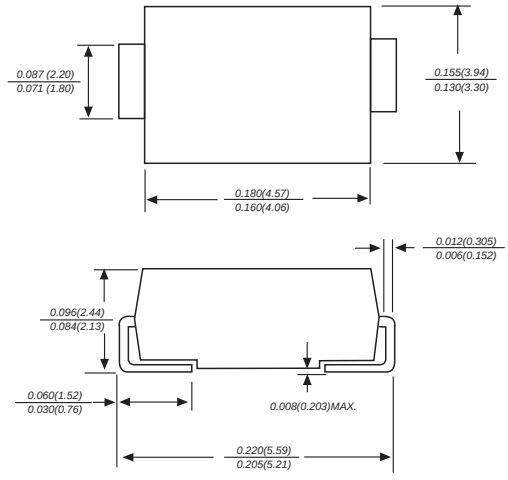
## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

*Reverse Voltage - 20 to 200 Volts  Forward Current - 5.0 Amperes*

## 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℃/10 seconds at terminals

**DO-214AA**




*Dimensions in inches and (millimeters)*

## MECHANICAL DATA

**Case**: JEDEC DO-214AA molded plastic body
**Terminals**: Solder plated, solderable per MIL-STD-750, Method 2026
**Polarity**: Color band denotes cathode end
**Mounting Position**: Any
**Weight**:0.003 ounce, 0.093grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| | *SYMBOLS* | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS510 | SS515 | SS520 | 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 $T_L$(see fig.1) | $I_{(AV)}$ | 5.0 | | | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 120.0 | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 5.0A | $V_F$ | 0.55 | | | 0.70 | | 0.85 | | 0.95 | | Volts |
| Maximum DC reverse current $T_A$=25℃ | $I_R$ | 0.5 | | | | | 0.2 | | | | mA |
| at rated DC blocking voltage $T_A$=100℃ | | 20 | | | | | 10 | | 2.0 | | |
| Typical junction capacitance (NOTE 1) | $C_J$ | 200 | | | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 50.0 | | | | | | | | | °C/W |
| Operating junction temperature range | $T_J$, | -55 to +125 | | | | | -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.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES SS52 THRU SS520

FIG. 1- FORWARD CURRENT DERATING CURVE

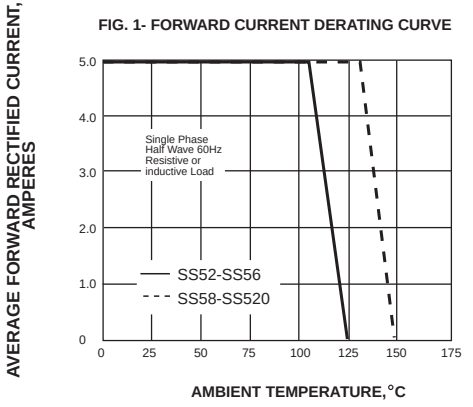



FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

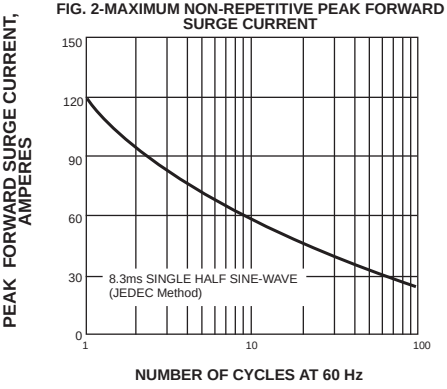



FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

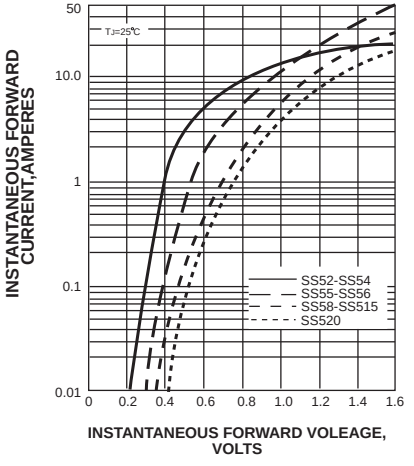



FIG. 4-TYPICAL REVERSE CHARACTERISTICS

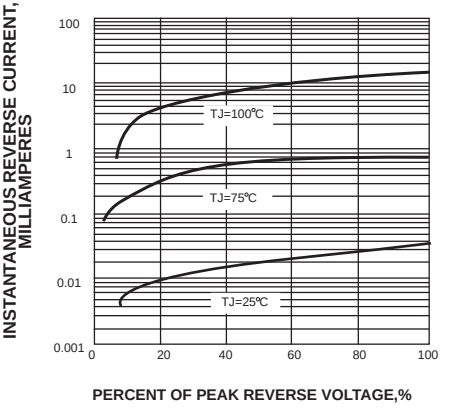



FIG. 5-TYPICAL JUNCTION CAPACITANCE

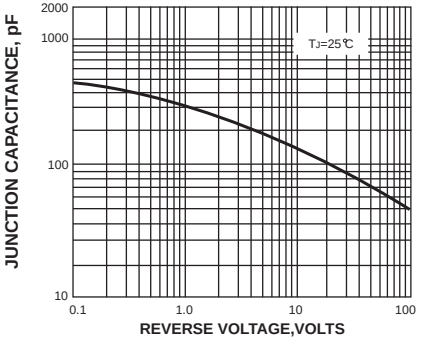



FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE