

SS32 THRU SS320

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

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:
250°C/10 seconds at terminals

MECHANICAL DATA

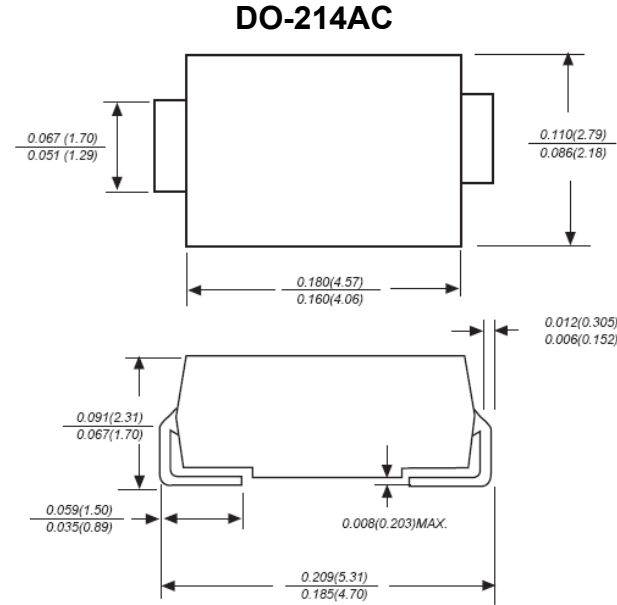
Case: JEDEC DO-214AC molded plastic body

Terminals: leads solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.058 grams



Dimensions in inches and (millimeters)

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 | SS32 | SS33 | SS34 | SS35 | SS36 | SS38 | SS310 | SS315 | SS320 | 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 | 140 | 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) | $I_{(AV)}$ | 3.0 | | | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 70.0 | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 3.0A | V_F | 0.55 | | | 0.70 | | 0.85 | | 0.95 | | Volts |
| Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$ | I_R | 0.5 | | | | | | | 1.0 | | mA |
| | | 20 | | | 10 | | | | | | |
| Typical junction capacitance (NOTE 1) | C_J | 500 | | | | 300 | | | | pF | |
| Typical thermal resistance (NOTE 2) | R_{QJA} | 55.0 | | | | | | | 62.0 | | °C/W |
| Operating junction temperature range | T_J | -65 to +125 | | | | -65 to +150 | | | | °C | |
| Storage temperature range | T_{STG} | -65 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

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RATINGS AND CHARACTERISTIC CURVES SS32 THRU SS320

FIG. 1- FORWARD CURRENT DERATING CURVE

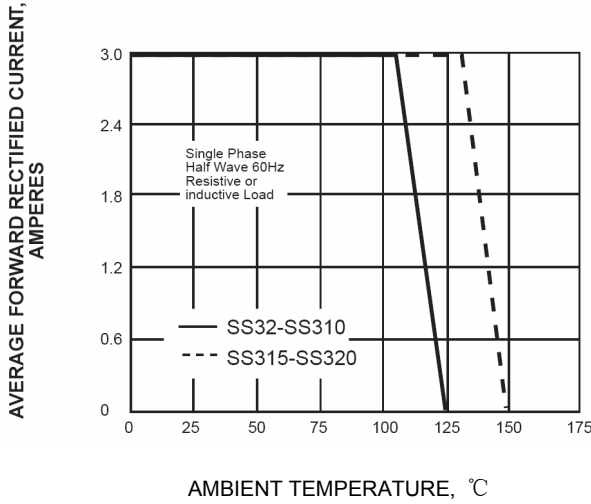


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

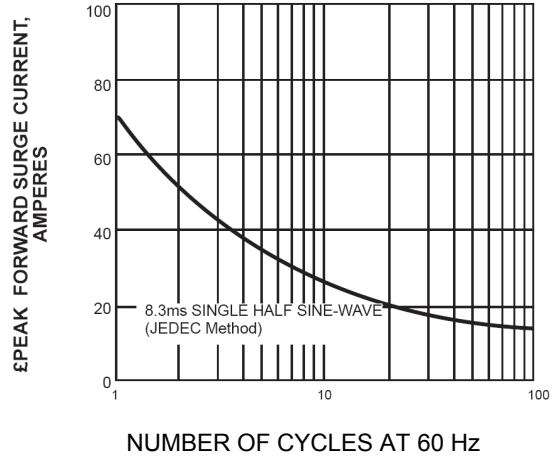


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

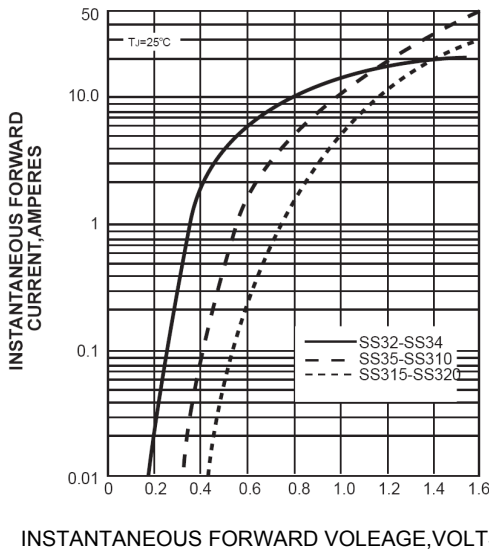
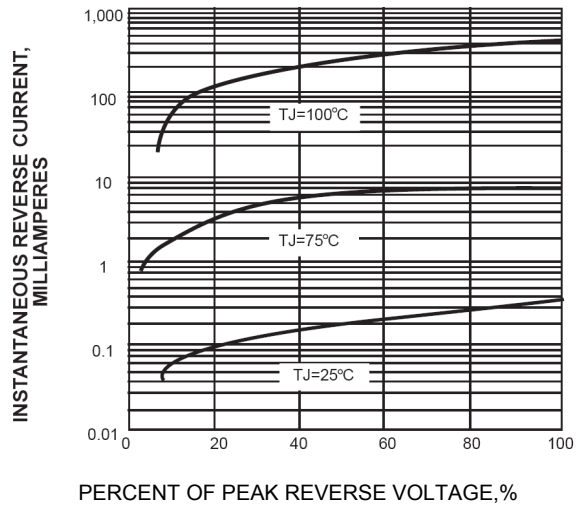


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 5-TYPICAL JUNCTION CAPACITANCE

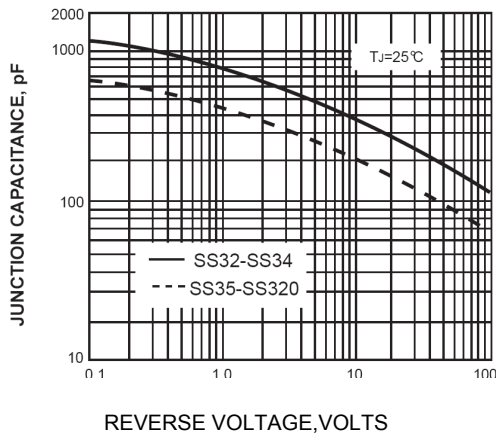
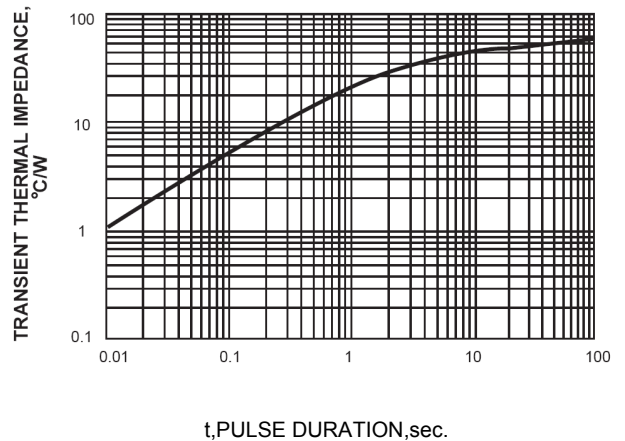


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice.