

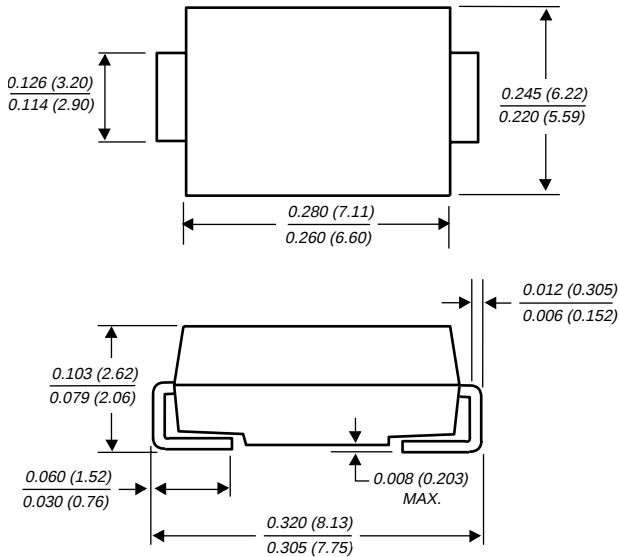
# SS32 THRU SS36

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 60 Volts

Forward Current - 3.0 Amperes

### DO-214AB



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mount applications
- ◆ Low profile package
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Easy pick and place
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ High temperature soldering: 250°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

**Weight:** 0.007 ounce 0.25 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

|                                                                                                     | SYMBOLS      | SS32         | SS33 | SS34 | SS35        | SS36 | UNITS |
|-----------------------------------------------------------------------------------------------------|--------------|--------------|------|------|-------------|------|-------|
| Device marking code                                                                                 |              | S2           | S3   | S4   | S5          | S6   |       |
| Maximum repetitive peak reverse voltage                                                             | VRRM         | 20           | 30   | 40   | 50          | 60   | Volts |
| Maximum RMS voltage                                                                                 | VRMS         | 14           | 21   | 28   | 35          | 42   | Volts |
| Maximum DC blocking voltage                                                                         | VDC          | 20           | 30   | 40   | 50          | 60   | Volts |
| Maximum average forward rectified current at T <sub>L</sub> (SEE FIG. 1) (NOTE 2)                   | I(AV)        | 3.0          |      |      |             |      | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM         | 100.0        |      |      |             |      | Amps  |
| Maximum instantaneous forward voltage at 3.0A (NOTE 1)                                              | VF           | 0.50         |      |      | 0.75        |      | Volts |
| Maximum DC reverse current (NOTE 1) TA=25°C<br>at rated DC blocking voltage TA=100°C                | IR           | 0.5          |      |      |             |      | mA    |
|                                                                                                     |              | 20.0         |      |      | 10.0        |      |       |
| Typical thermal resistance (NOTE 2)                                                                 | RθJA<br>RθJL | 55.0<br>17.0 |      |      |             |      | °C/W  |
| Operating junction temperature range                                                                | TJ           | -55 to +125  |      |      | -55 to +150 |      | °C    |
| Storage temperature range                                                                           | TSTG         | -55 to +150  |      |      |             |      | °C    |

#### NOTES:

(1) Pulse test: 300μs pulse width, 1% duty cycle

(2) P.C.B. mounted 0.55 x 0.55" (14 x 14mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES SS32 THRU SS36

FIG. 1 - FORWARD CURRENT DERATING CURVE

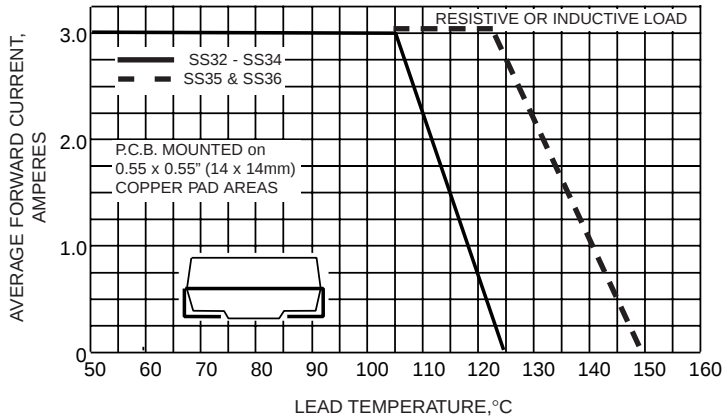


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

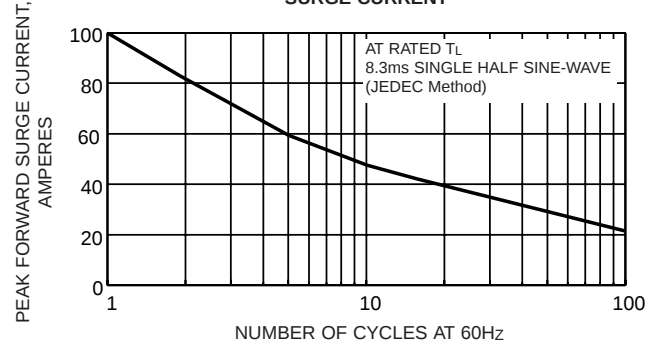


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

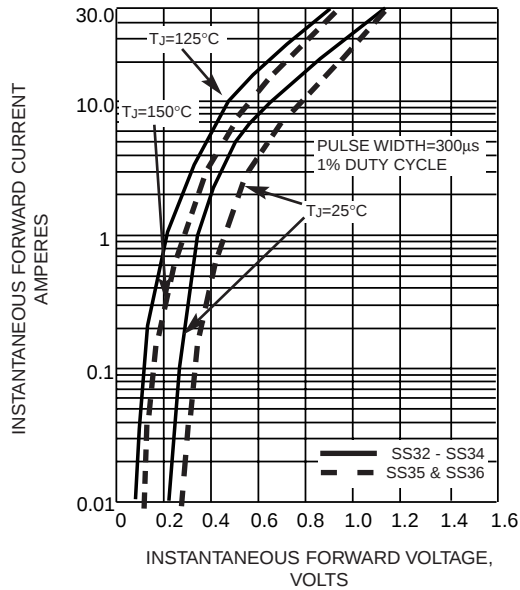


FIG. 4 - TYPICAL REVERSE CURRENT CHARACTERISTICS

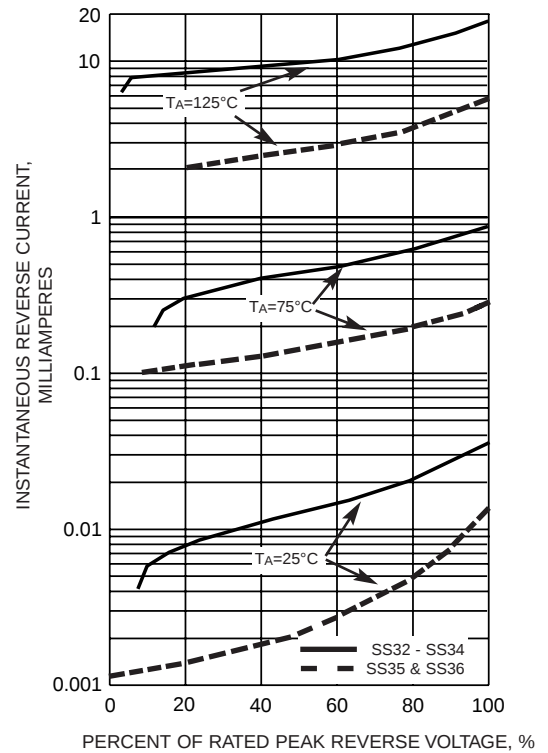


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

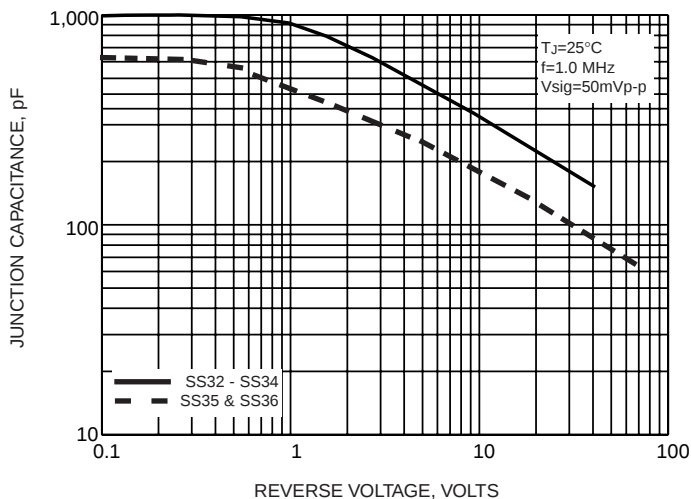


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

