

# SR32 THRU SR39

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage – 20 to 90 V

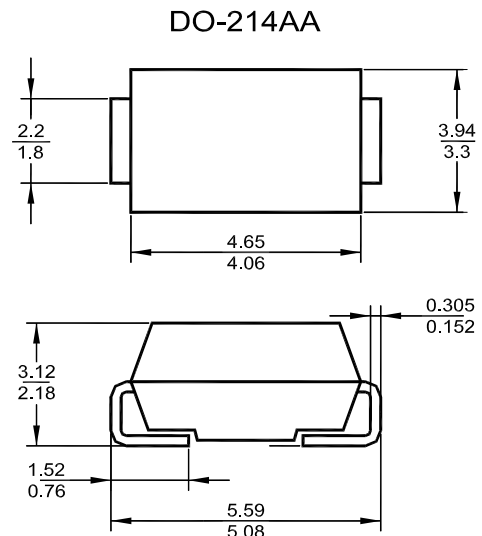
Forward Current – 3 A

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Built-in strain relief, ideal for automated placement
- Low power loss, High efficiency
- High forward surge current capability
- For surface mounted applications
- High temperature soldering guaranteed: 250 °C /10 seconds at terminals.

### Mechanical Data

- **Case:** Molded plastic body, JEDEC DO-214AA
- **Terminals:** leads solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any



Dimensions in millimeters

### Absolute Maximum Ratings and Characteristics

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

| Parameter                                                                                               | Symbols            | SR32          | SR33 | SR34 | SR35          | SR36 | SR38 | SR39 | Units |
|---------------------------------------------------------------------------------------------------------|--------------------|---------------|------|------|---------------|------|------|------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                 | V <sub>RRM</sub>   | 20            | 30   | 40   | 50            | 60   | 80   | 90   | V     |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub>   | 14            | 21   | 28   | 35            | 42   | 56   | 64   | V     |
| Maximum DC Blocking Voltage                                                                             | V <sub>DC</sub>    | 20            | 30   | 40   | 50            | 60   | 80   | 90   | V     |
| Maximum Average Forward Rectified Current                                                               | I <sub>F(AV)</sub> | 3             |      |      |               |      |      |      | A     |
| Peak Forward Surge Current<br>8.3 ms Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method) | I <sub>FSM</sub>   | 80            |      |      |               |      |      |      | A     |
| Maximum Instantaneous Forward Voltage at 3 A                                                            | V <sub>F</sub>     | 0.5           |      | 0.75 |               |      | 0.85 |      | V     |
| Maximum DC Reverse Current<br>Ta = 25 °C<br>at Rated DC Blocking Voltage<br>Ta = 100 °C                 | I <sub>R</sub>     | 0.5<br>20     |      |      |               |      |      |      | mA    |
| Typical Junction Capacitance <sup>1)</sup>                                                              | C <sub>tot</sub>   | 500           |      |      | 300           |      |      |      | pF    |
| Typical Thermal Resistance <sup>2)</sup>                                                                | R <sub>θJA</sub>   | 75            |      |      |               |      |      |      | °C/W  |
| Operating JunctionTemperature Range                                                                     | T <sub>J</sub>     | - 65 to + 125 |      |      | - 65 to + 150 |      |      |      | °C    |
| Storage Temperature Range                                                                               | T <sub>stg</sub>   | - 65 to + 125 |      |      |               |      |      |      | °C    |

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 V DC.

<sup>2)</sup> P.C.B, mounted with 0.2 × 0.2" (5 × 5 mm) copper pad areas.

