

## Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250 C/10 seconds at terminals

## Mechanical Data

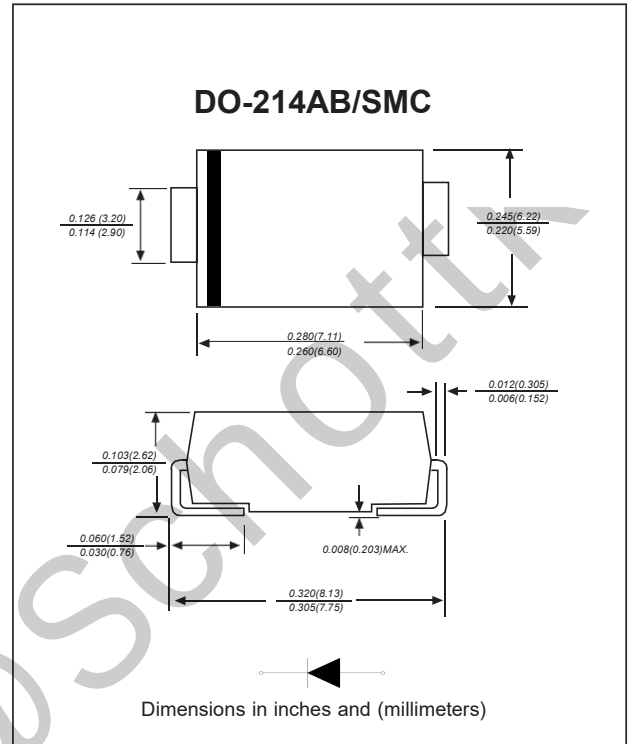
**Case :** Molded plastic body

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

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.008 ounce, 0.225 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%.

| Parameter                                                                         | SYMBOLS           | SS52        | SS54 | SS56 | SS58       | SS510 | SS515 | SS520 | UNITS |
|-----------------------------------------------------------------------------------|-------------------|-------------|------|------|------------|-------|-------|-------|-------|
| Maximum repetitive peak reverse voltage                                           | V <sub>RRM</sub>  | 20          | 40   | 60   | 80         | 100   | 150   | 200   | V     |
| Maximum RMS voltage                                                               | V <sub>RMS</sub>  | 14          | 28   | 42   | 56         | 70    | 105   | 140   | V     |
| Maximum DC blocking voltage                                                       | V <sub>DC</sub>   | 20          | 40   | 60   | 80         | 100   | 150   | 200   | V     |
| Maximum average forward rectified current at T <sub>L</sub> =100°C                | I <sub>(AV)</sub> | 5.0         |      |      |            |       |       |       | A     |
| Peak forward surge current, 8.3ms single halfsine-wave superimposed on rated load | I <sub>FSM</sub>  | 120.0       |      |      |            |       |       |       | A     |
| Maximum instantaneous forward voltage at 5.0A                                     | V <sub>F</sub>    | 0.55        |      | 0.70 | 0.85       |       | 0.95  |       | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage                        | I <sub>R</sub>    | 0.5<br>50   |      |      | 0.05<br>10 |       |       |       | mA    |
| Typical thermal resistance                                                        | R <sub>qJA</sub>  | 47.0        |      |      |            |       |       |       | °C/W  |
| Operating junction temperature range                                              | T <sub>J</sub>    | -55 to +150 |      |      |            |       |       |       | °C    |
| Storage temperature range                                                         | T <sub>STG</sub>  | -55 to +150 |      |      |            |       |       |       | °C    |

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

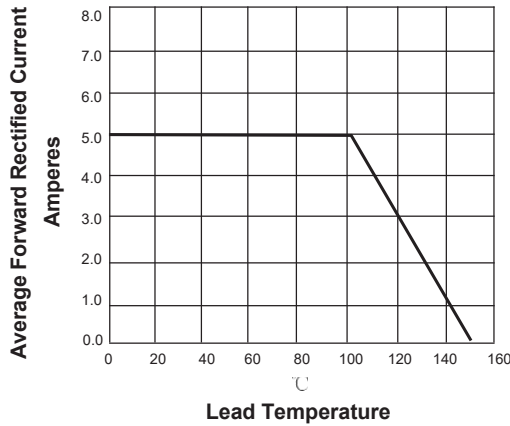


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

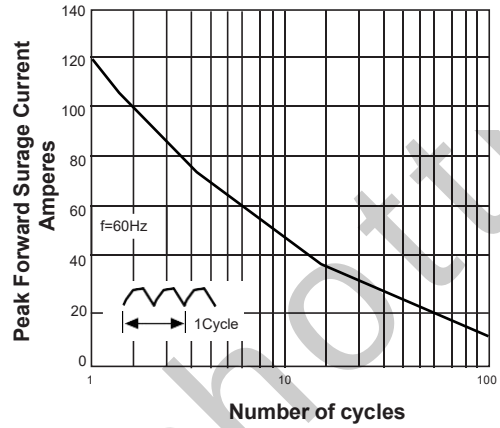


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

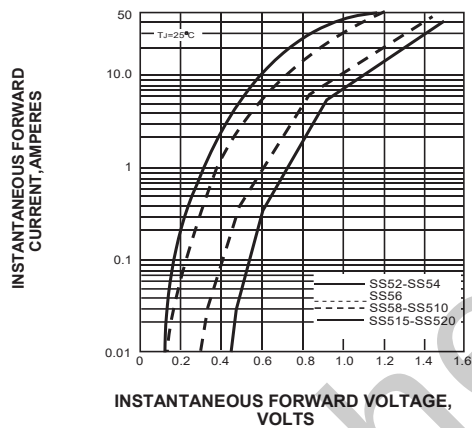
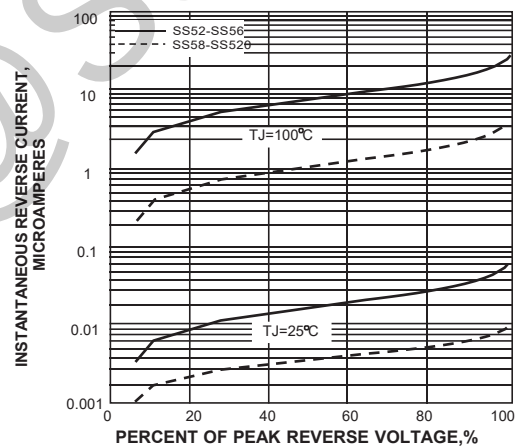
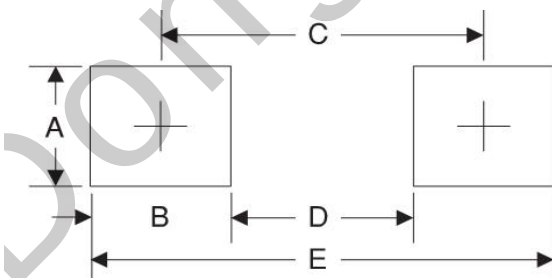


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

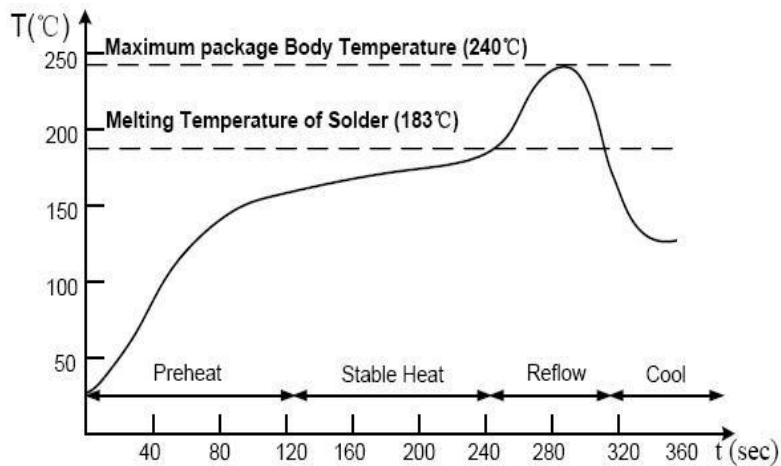


## Suggested Pad Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 3.30      | 0.130       |
| B      | 2.50      | 0.098       |
| C      | 6.80      | 0.268       |
| D      | 4.40      | 0.173       |
| E      | 9.40      | 0.370       |

## Suggested Soldering Temperature Profile

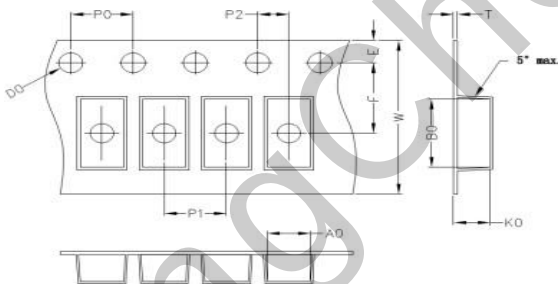


### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265 °C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## Package Information

### Carrier Dimension(mm)



| A0   | B0   | K0   | D0   | E    | F         |
|------|------|------|------|------|-----------|
| 6.05 | 8.31 | 2.54 | 1.55 | 1.75 | 7.50      |
| P0   | P1   | P2   | T    | W    | Tolerance |
| 4.0  | 8.0  | 2.0  | 0.25 | 16   | 0.1       |

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### Head Office

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