



## Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C/10 seconds at terminals

## Mechanical Data

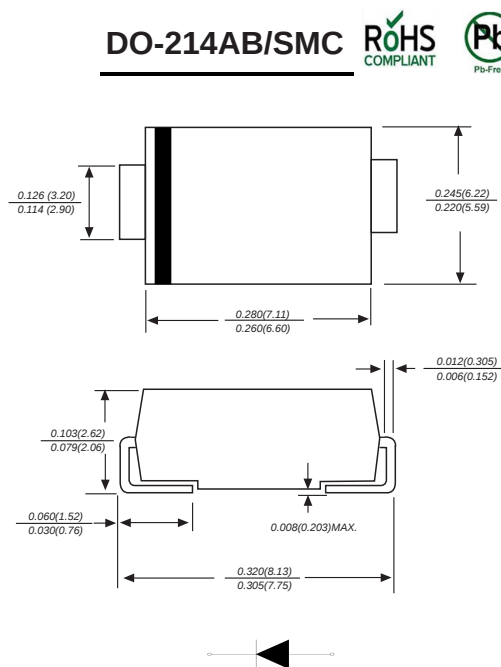
**Case** : Molded plastic body

**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



Dimensions in inches and (millimeters)

## Maximum Ratings And Electrical Characteristics

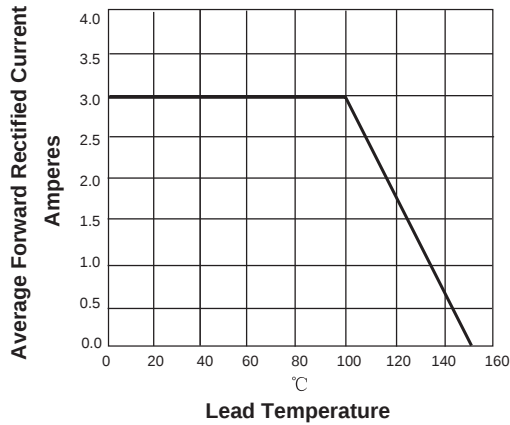
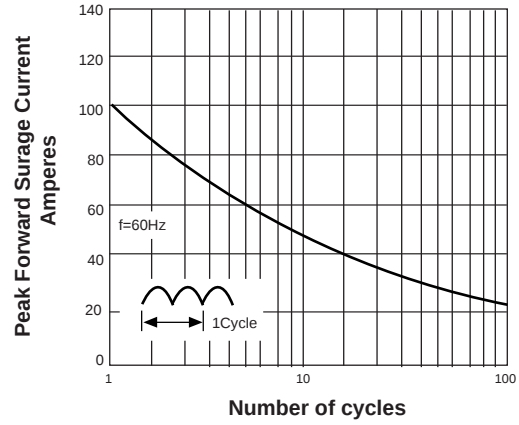
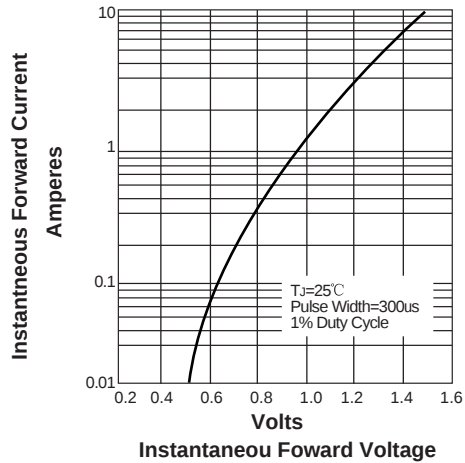
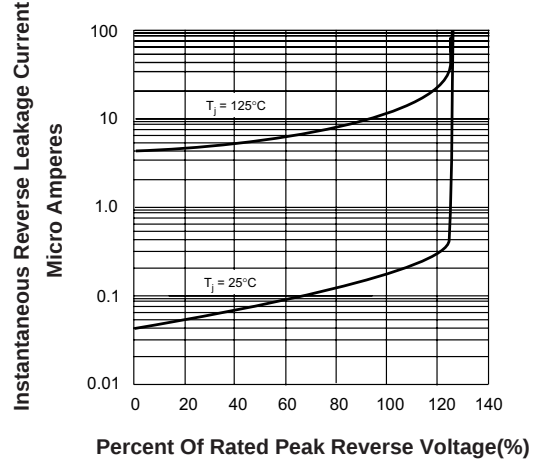
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                   | SYMBOLS                          | RS3A        | RS3B | RS3D | RS3G | RS3J | RS3K | RS3M | UNITS |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|------|------|------|------|------|------|-------|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>                 | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V     |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>                 | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V     |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>                  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V     |
| Maximum average forward rectified current at T <sub>L</sub> =100°C                                          | I <sub>(AV)</sub>                | 3.0         |      |      |      |      |      |      | A     |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load                          | I <sub>FSM</sub>                 | 100.0       |      |      |      |      |      |      | A     |
| Maximum instantaneous forward voltage at 3.0A                                                               | V <sub>F</sub>                   | 1.30        |      |      |      |      |      |      | V     |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =125°C | I <sub>R</sub>                   | 5.0<br>500  |      |      |      |      |      |      | u A   |
| Maxinum reverse recovery time(Note 1)                                                                       | T <sub>rr</sub>                  | 150         |      |      |      | 250  | 500  |      | ns    |
| Typical junction capacitance (Note2)                                                                        | C <sub>J</sub>                   | 60.0        |      |      |      |      |      |      | pF    |
| Typical thermal resistance                                                                                  | R <sub>qJA</sub>                 | 47.0        |      |      |      |      |      |      | °C/W  |
| Operating junction and storage temperature range                                                            | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |      | °C    |

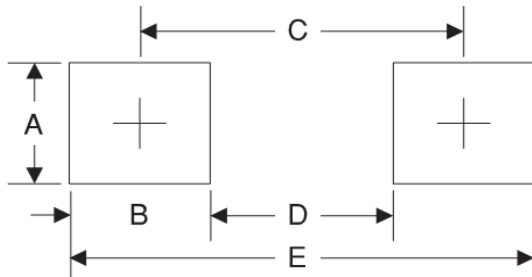
**Note:** 1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**

**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**

**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       |