

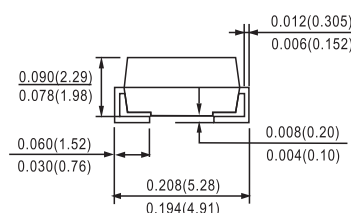
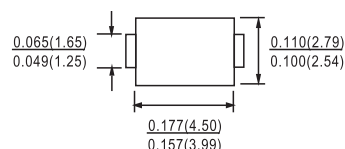
#### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Low forward voltage drop

#### Mechanical Data

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.063 grams

#### DO-214AC(SMA)



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                           | SM120A     | SM130A | SM140A | SM150A     | SM160A | SM180A | SM190A | SM1100A | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|--------|--------|------------|--------|--------|--------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 20         | 30     | 40     | 50         | 60     | 80     | 90     | 100     | V     |
| Maximum RMS Voltage                                                                                   | 14         | 21     | 28     | 35         | 42     | 56     | 63     | 70      | V     |
| Maximum DC Blocking Voltage                                                                           | 20         | 30     | 40     | 50         | 60     | 80     | 90     | 100     | V     |
| Maximum Average Forward Rectified Current<br>See Fig. 1                                               | 1.0        |        |        |            |        |        |        |         | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 40         |        |        |            |        |        |        |         | A     |
| Maximum Instantaneous Forward Voltage at 1.0A                                                         | 0.55       |        | 0.70   |            | 0.85   |        | V      |         |       |
| Maximum DC Reverse Current<br>Ta=25°C                                                                 | 1.0        |        |        |            |        |        |        |         | mA    |
| at Rated DC Blocking Voltage<br>Ta=100°C                                                              | 10         |        |        |            |        |        |        |         | mA    |
| Typical Junction Capacitance (Note1)                                                                  | 110        |        |        |            |        |        |        |         | pF    |
| Typical Thermal Resistance R JA (Note 2)                                                              | 50         |        |        |            |        |        |        |         | °C/W  |
| Operating Temperature Range Tj                                                                        | -65 — +125 |        |        | -65 — +150 |        |        |        |         | °C    |
| Storage Temperature Range TSTG                                                                        | -65 — +150 |        |        |            |        |        |        |         | °C    |

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

## RATINGS AND CHARACTERISTIC CURVES SM120A THRU SM1100A

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

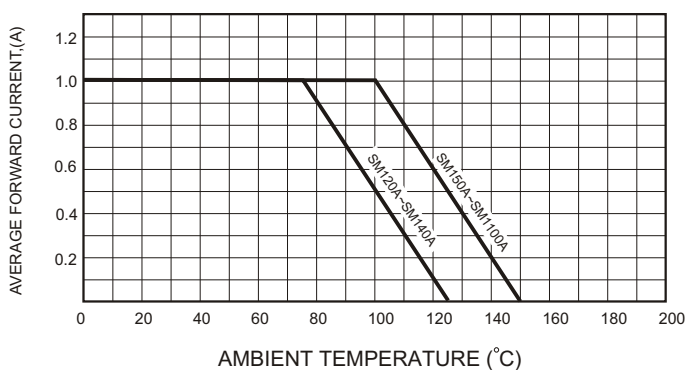


FIG.2-TYPICAL FORWARD CHARACTERISTICS

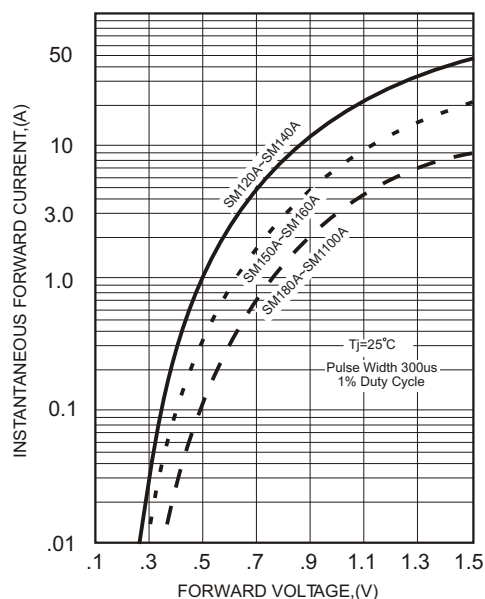


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

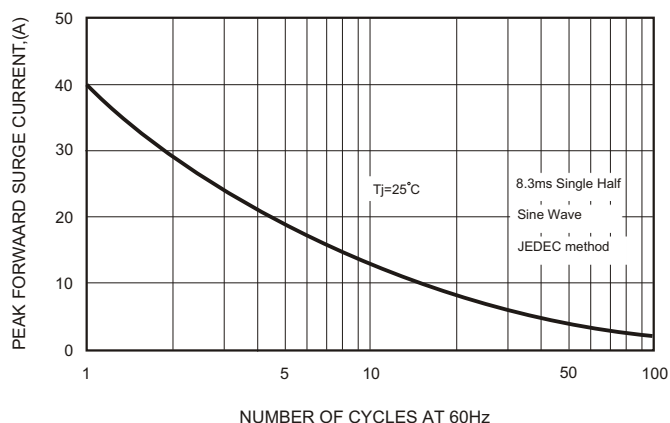


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

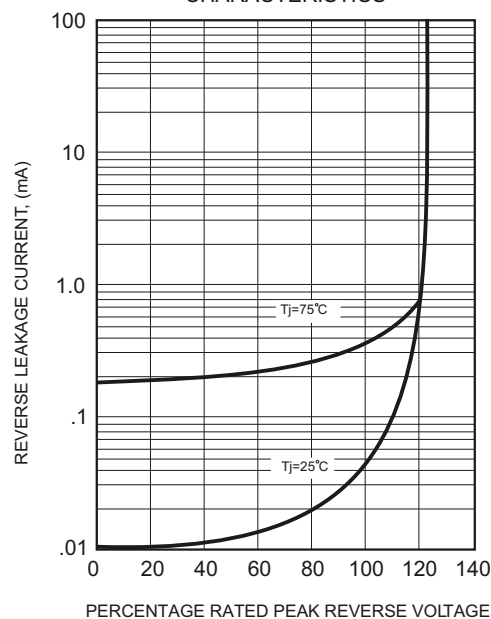


FIG.4-TYPICAL JUNCTION CAPACITANCE

