

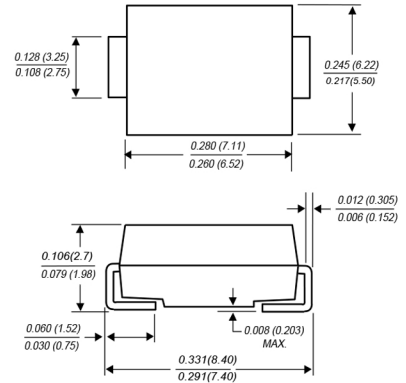
## FEATURES

- Metal-Semiconductor junction with gard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low vlotage, high frequency inverters, free wheeling, and polarity protection applications

## MECHANICAL DATA

- Case: Molded Plastic
- Polarity:Color band denotes cathode
- Weight: 0.22grams

### DO-214AB



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%.

| CHARACTERISTICS   | SYMBOL | SS52        | SS53 | SS54 | SS55      | SS56 | SS58 | SS510 | SS515 | SS520 | UNIT |
|---|--------|-------------|------|------|-----------|------|------|-------|-------|-------|------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 20          | 30   | 40   | 50        | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum RMS Voltage   | VRMS   | 14          | 21   | 28   | 35        | 42   | 56   | 70    | 105   | 140   | V    |
| Maximum DC Blocking Voltage   | Vdc    | 20          | 30   | 40   | 50        | 60   | 80   | 100   | 150   | 200   | V    |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Lengths                                | l(AV)  | 5.0         |      |      |           |      |      |       |       |       | A    |
| Peak Forward Surage Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method) | lFSM   | 100         |      |      |           |      |      |       |       |       | A    |
| Maximum Forward Voltage at 5.0A DC  | VF     | 0.55        |      |      | 0.7       |      | 0.85 |       | 0.95  |       | V    |
| Maximum DC Reverse Current @TJ=25℃<br>at Rated DC Bolcking Voltage @TJ=100℃                             | IR     | 0.2<br>20   |      |      | 1.0<br>50 |      |      |       |       |       | mA   |
| Typical Junction Capacitance (Note1)  | CJ     | 500         |      |      | 350       |      |      |       |       |       | pF   |
| Typical Thermal Resistance (Note2)  | RθJA   | 15          |      |      | 10        |      |      |       |       |       | ℃/W  |
| Operating Temperature Range   | TJ     | -55 to +150 |      |      |           |      |      |       |       |       | ℃    |
| Storage Temperature Range   | TSTG   | -55 to +150 |      |      |           |      |      |       |       |       | ℃    |

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to ambient,

FIG. 1 – FORWARD CURRENT DERATING CURVE

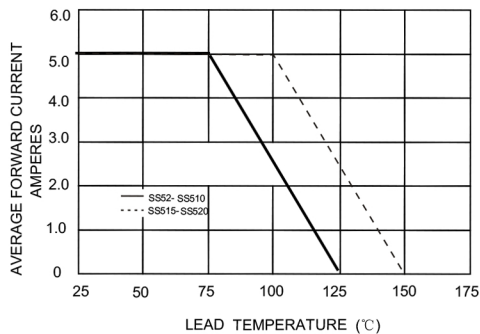


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

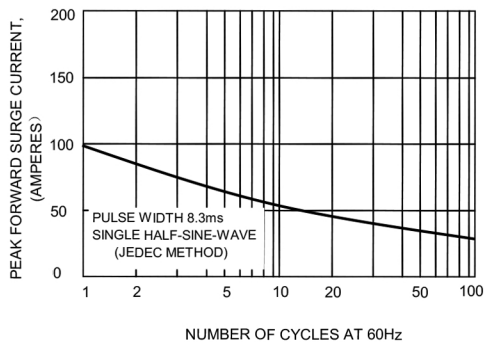


FIG.3 – TYPICAL JUNCTION CAPACITANCE

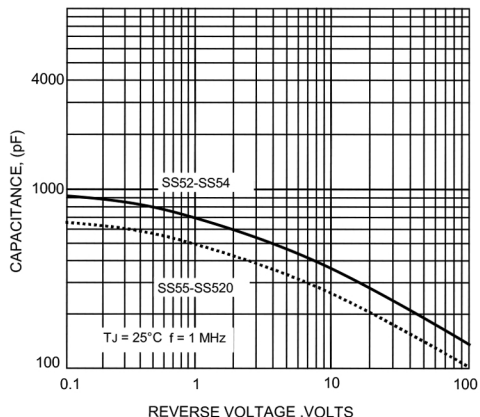


FIG.4-TYPICAL FORWARD CHARACTERISTICS

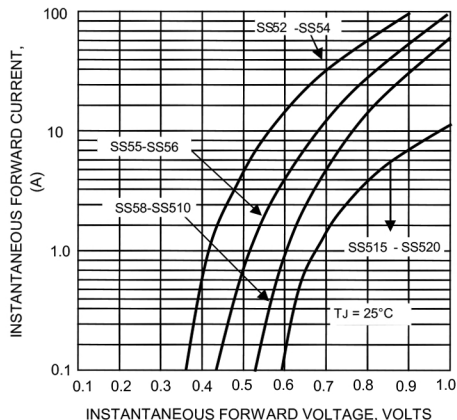


FIG.2-TYPICAL REVER CHARACTERISTICS

