

## 2.0 AMP SURFACE MOUNT FAST RECOVERY RECTIFIERS

### FEATURES

- \* Ideal for surface mount applications
- \* Easy pick and place
- \* Built-in strain relief
- \* Fast switching speed

### 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: 0.093 grams

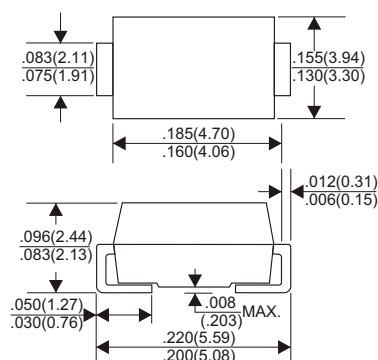
### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

2.0 Ampere

#### DO-214AA(SMB)



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                                                                                           | RS2AB      | RS2BB | RS2DB | RS2GB | RS2JB | RS2KB | RS2MB | UNITS |
|-------------------------------------------------------------------------------------------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                | 50         | 100   | 200   | 400   | 600   | 800   | 1000  | V     |
| Maximum RMS Voltage                                                                                   | 35         | 70    | 140   | 280   | 420   | 560   | 700   | V     |
| Maximum DC Blocking Voltage                                                                           | 50         | 100   | 200   | 400   | 600   | 800   | 1000  | V     |
| Maximum Average Forward Rectified Current<br>at Ta=90°C                                               | 2.0        |       |       |       |       |       |       | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 50         |       |       |       |       |       |       | A     |
| Maximum Instantaneous Forward Voltage at 2.0A                                                         | 1.3        |       |       |       |       |       |       | V     |
| Maximum DC Reverse Current Ta=25°C                                                                    | 5.0        |       |       |       |       |       |       | μA    |
| at Rated DC Blocking Voltage Ta=125°C                                                                 | 300        |       |       |       |       |       |       | μA    |
| Maximum Reverse Recovery Time (Note 1)                                                                | 150        |       |       |       | 250   | 500   |       | nS    |
| Typical Junction Capacitance (Note 2)                                                                 | 50         |       |       |       |       |       |       | pF    |
| Operating and Storage Temperature Range Tj, Tstg                                                      | -65 — +150 |       |       |       |       |       |       | °C    |

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## RATING AND CHARACTERISTIC CURVES (RS2AB THRU RS2MB)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

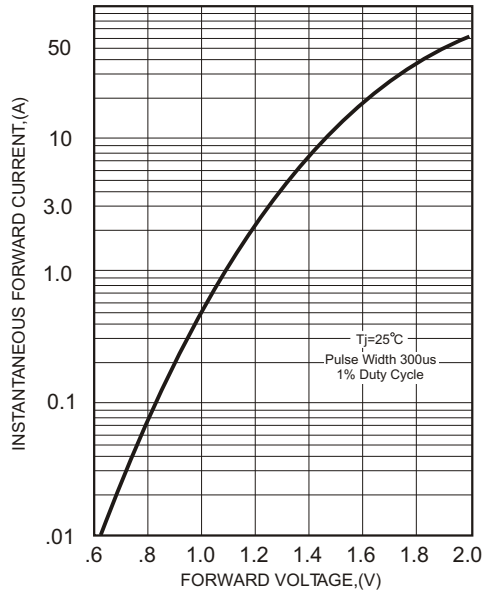


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

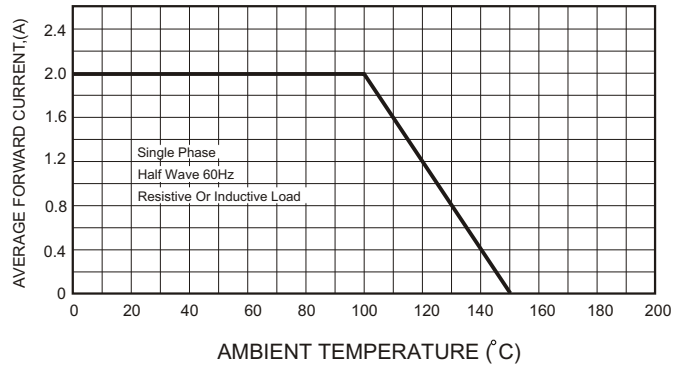


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

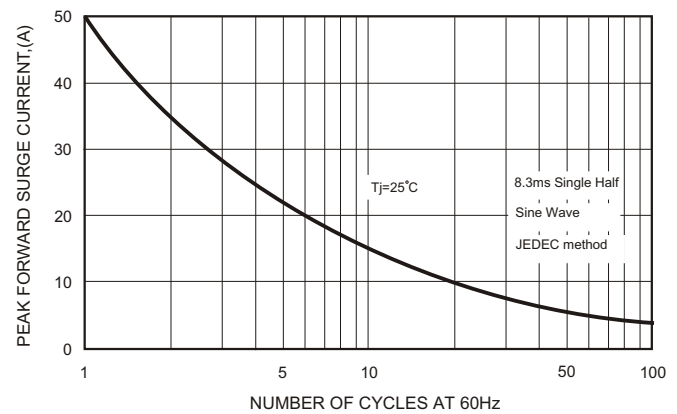
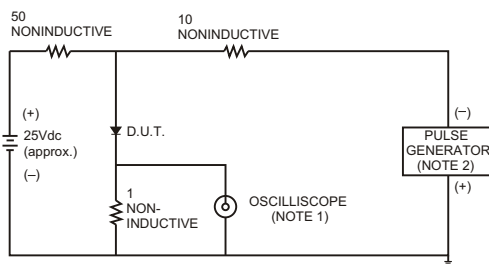


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

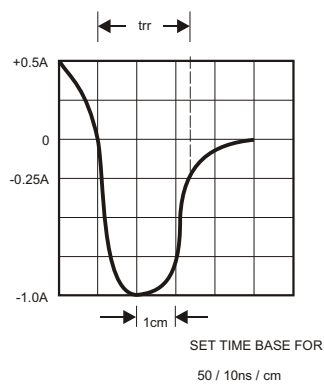


FIG.5-TYPICAL JUNCTION CAPACITANCE

