

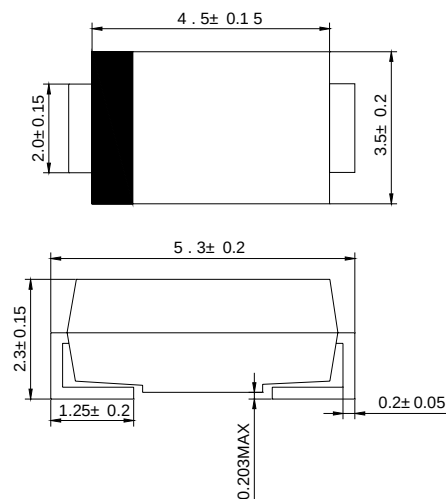
## FEATURES

- ◇ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ High current capability
- ◇ High temperature soldering:  
250°C/10 seconds at terminals

## MECHANICAL DATA

- ◇ Case: JEDEC DO-214AA, molded plastic over passivated chip
- ◇ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.003 ounces, 0.093 gram

## DO - 214AA(SMB)



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

|                                                                                                                              |                                    | S2A          | S2B | S2D | S2G | S2J | S2K | S2M  | UNITS              |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------|-----|-----|-----|-----|-----|------|--------------------|
| Maximum recurrent peak reverse voltage                                                                                       | $V_{RRM}$                          | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | V                  |
| Maximum RMS voltage                                                                                                          | $V_{RWS}$                          | 35           | 70  | 140 | 280 | 420 | 560 | 700  | V                  |
| Maximum DC Blocking Voltage                                                                                                  | $V_{DC}$                           | 50           | 100 | 200 | 400 | 600 | 800 | 1000 | V                  |
| Maximum average forward rectified current at $T_L = 100^\circ\text{C}$                                                       | $I_{(AV)}$                         | 2.0          |     |     |     |     |     |      | A                  |
| Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$                          | 50.0         |     |     |     |     |     |      | A                  |
| Maximum Instantaneous Forward Voltage at 2.0A                                                                                | $V_F$                              | 1.15         |     |     |     |     |     |      | V                  |
| Maximum DC reverse current @ $T_A = 25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$            | $I_R$                              | 5.0<br>125.0 |     |     |     |     |     |      | $\mu\text{A}$      |
| Maximum reverse recovery time (NOTE 1)                                                                                       | $t_{rr}$                           | 2.0          |     |     |     |     |     |      | $\mu\text{S}$      |
| Typical junction capacitance (NOTE 2)                                                                                        | $C_J$                              | 30.0         |     |     |     |     |     |      | pF                 |
| Typical thermal resistance (NOTE 3)                                                                                          | $R_{\theta JA}$<br>$R_{\theta JL}$ | 53.0<br>16.0 |     |     |     |     |     |      | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                                             | $T_J T_{STG}$                      | -55-----+150 |     |     |     |     |     |      | $^\circ\text{C}$   |

NOTE: 1.Reverse recovery time test conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $t_{rr} = 0.25\text{A}$

2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.27"X0.27"(7.0X7.0mm<sup>2</sup>) copper pad areas

FIG.1 – FORWARD DERATING CURVE

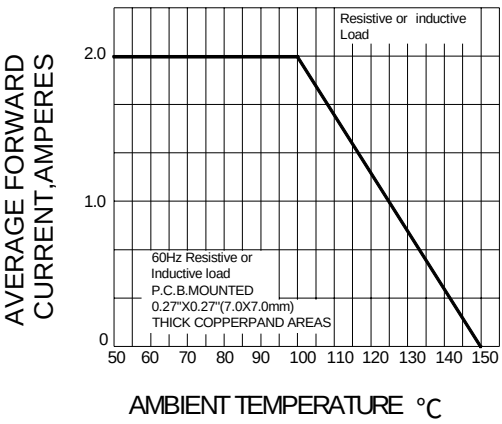


FIG.2 PEAK FORWARD SURGE CURRENT

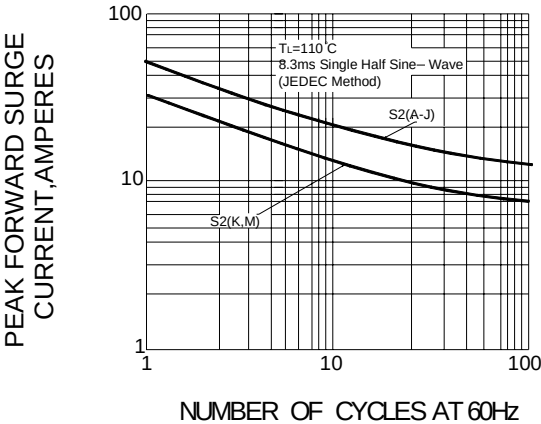


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

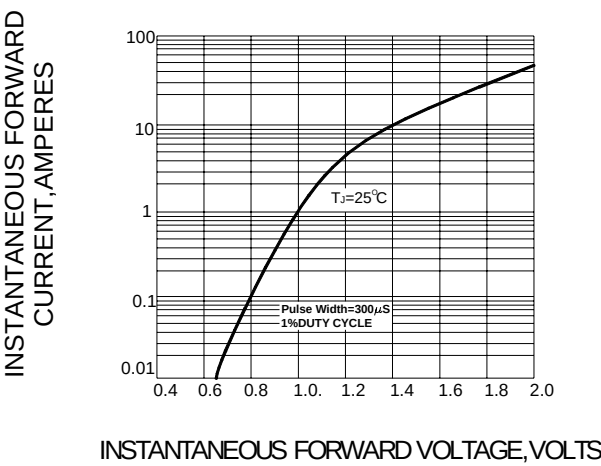


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

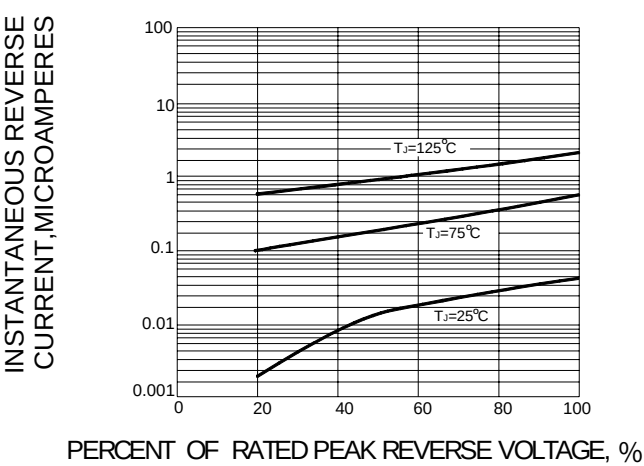


FIG.5-TYPICAL JUNCTION CAPACITANCE

