



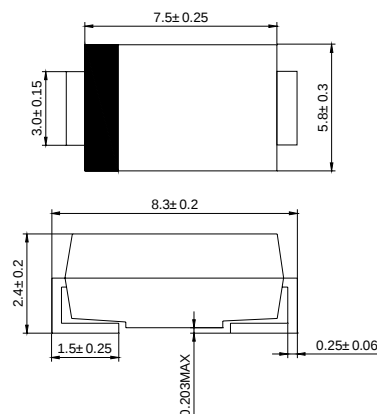
## Features

- ◇ 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 temperature soldering:  
250°C/10 seconds at terminals

## Mechanical Data

- ◇ Case: JEDEC DO-214AB, molded plastic over passivated chip
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.007 ounces, 0.21 gram

## DO - 214AB(SMC)



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

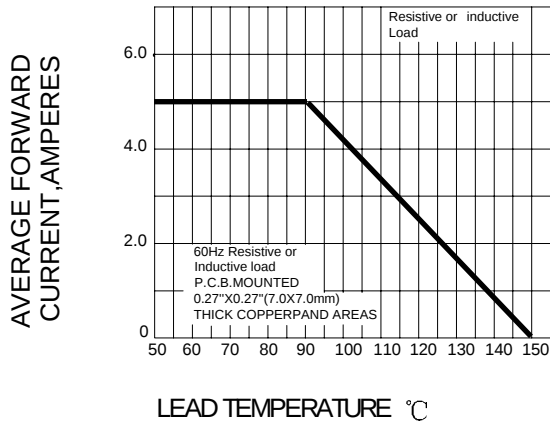
|                                                                                                                   |                 | S5AC         | S5BC | S5DC | S5GC | S5JC | S5KC | S5MC | UNITS              |
|-------------------------------------------------------------------------------------------------------------------|-----------------|--------------|------|------|------|------|------|------|--------------------|
| 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<br>@ $T_J = 90^\circ\text{C}$                                           | $I_{F(AV)}$     | 5.0          |      |      |      |      |      |      | A                  |
| Peak forward surge current 8.3ms<br>single half-sine-wave superimposed on rated<br>load (JEDEC Method)            | $I_{FSM}$       | 150          |      |      |      |      |      |      | A                  |
| Maximum Instantaneous forward voltage at 5.0 A                                                                    | $V_F$           | 1.15         |      |      |      |      |      |      | V                  |
| Maximum DC reverse current @ $T_A = 25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$ | $I_R$           | 10<br>250    |      |      |      |      |      |      | $\mu\text{A}$      |
| Typical junction capacitance                                                                                      | $C_J$           | 35           |      |      |      |      |      |      | pF                 |
| Typical thermal resistance (NOTE 2)                                                                               | $R_{\theta JA}$ | 40           |      |      |      |      |      |      | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range                                                                  | $T_J T_{STG}$   | -55-----+150 |      |      |      |      |      |      | $^\circ\text{C}$   |

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

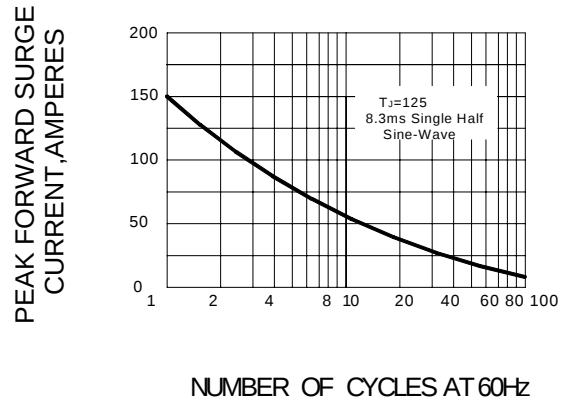
2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on  $0.27'' \times 0.27'' (7.0 \times 7.0 \text{ mm}^2)$  copper pad areas

## Ratings AND Characteristic Curves

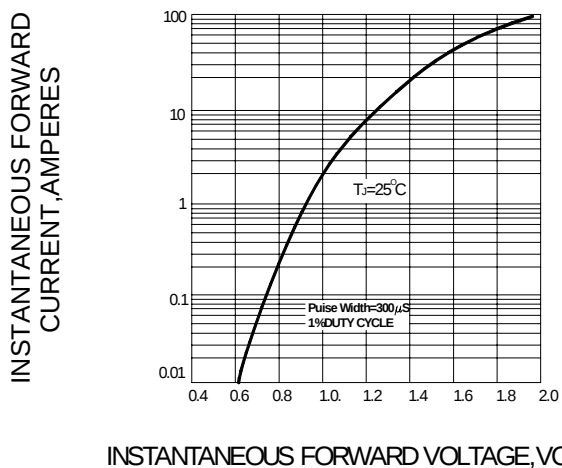
**FIG.1 – FORWARD DERATING CURVE**



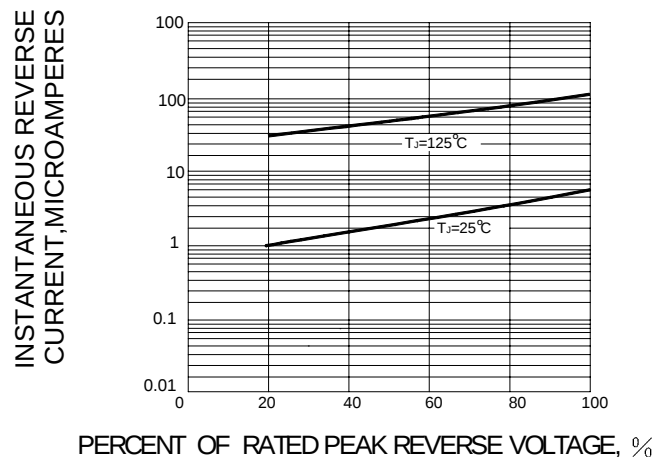
**FIG.2 PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

