



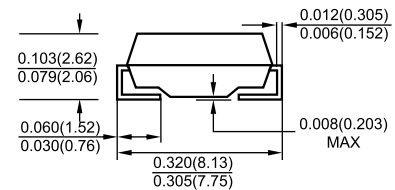
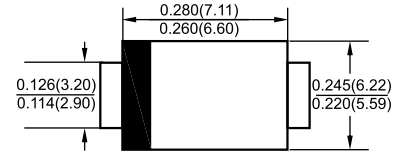
## Features

- ✧ 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

## SMC/DO-214AB



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

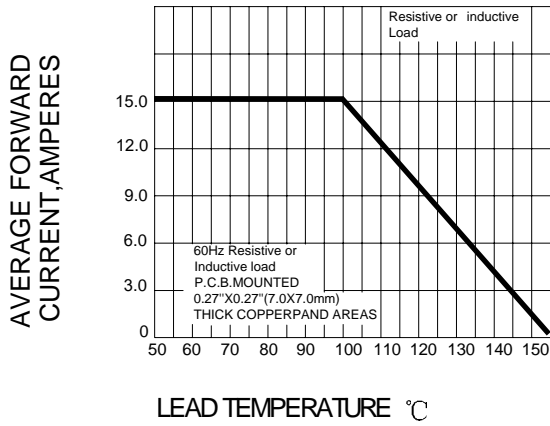
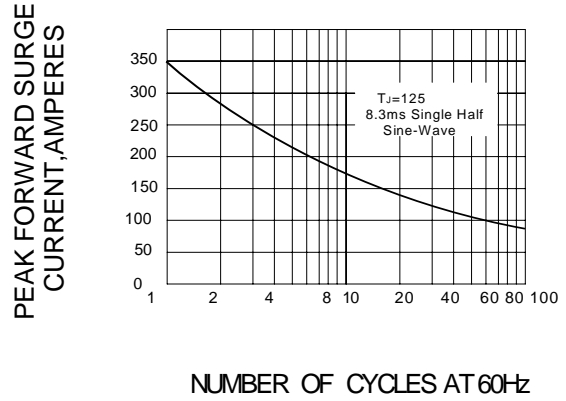
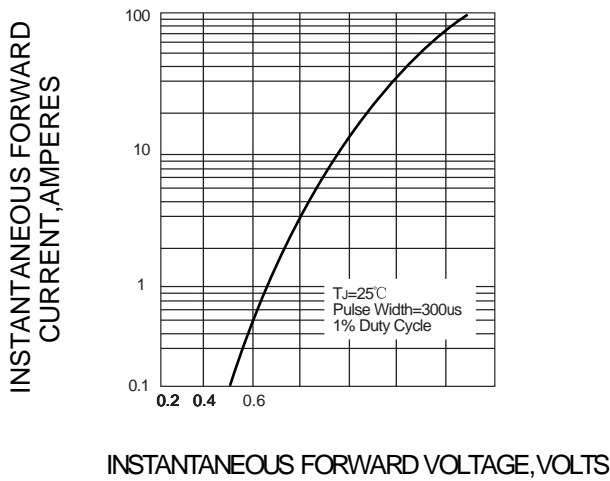
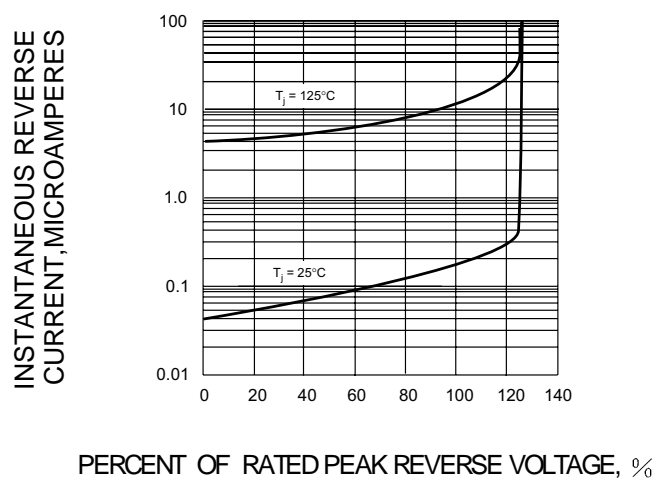
|   |                 | S15A        | S15B | S15D | S15G | S15J | S15K | S15M | UNITS              |
|---|-----------------|-------------|------|------|------|------|------|------|--------------------|
| Maximum recurrent peak reverse voltage  | $V_{RRM}$       | 50          | 100  | 200  | 400  | 600  | 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 @ $T_J = 90^\circ\text{C}$  | $I_{F(AV)}$     | 15          |      |      |      |      |      |      | A                  |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)                  | $I_{FSM}$       | 350         |      |      |      |      |      |      | A                  |
| Maximum Instantaneous forward voltage at 5.0 A  | $V_F$           | 1.1         |      |      |      |      |      |      | 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<br>500    |      |      |      |      |      |      | $\mu\text{A}$      |
| Typical junction capacitance  | $C_J$           | 85          |      |      |      |      |      |      | pF                 |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 45          |      |      |      |      |      |      | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range  | $T_J T_{STG}$   | -55 TO +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"X0.27" (7.0X7.0mm<sup>2</sup>) 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**


| PACKAGE | SPQ/PCS   | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMC     | 3000/REEL | 42000          | 36X36X36.5     | 18.50        | 15.50        |