

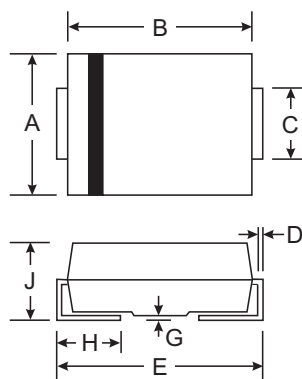
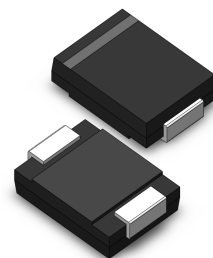
**VOLTAGE RANGE: 20 - 100V**  
**CURRENT: 8.0 A**

### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0

### Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



| SMC/DO-214AB         |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 5.59 | 6.22 |
| B                    | 6.60 | 7.11 |
| C                    | 2.75 | 3.18 |
| D                    | 0.15 | 0.31 |
| E                    | 7.75 | 8.13 |
| G                    | 0.10 | 0.20 |
| H                    | 0.76 | 1.52 |
| J                    | 2.00 | 2.62 |
| All Dimensions in mm |      |      |

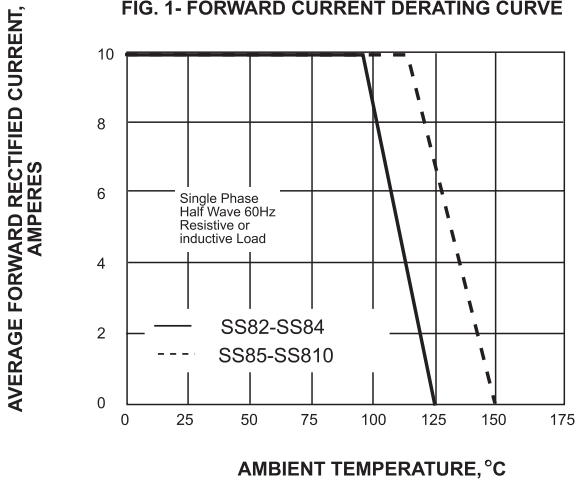
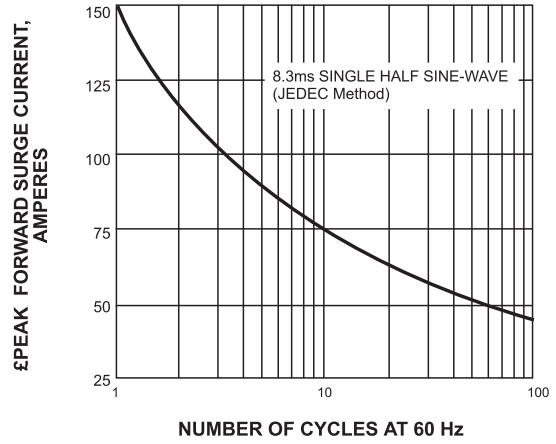
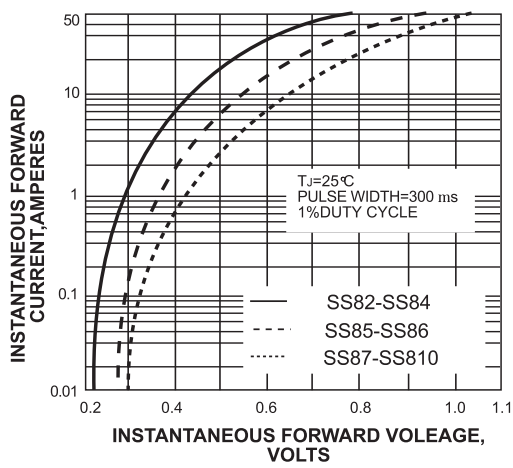
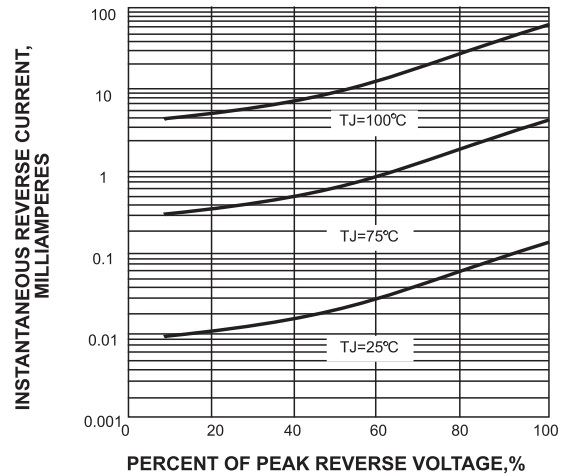
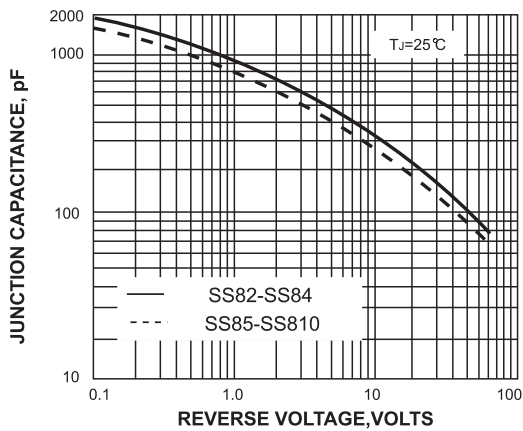


### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic   | Symbol              | SS82  | SS83 | SS835 | SS84 | SS85        | SS86 | SS88 | SS810 | Unit |      |
|--|---------------------|-------|------|-------|------|-------------|------|------|-------|------|------|
| Peak Repetitive Reverse Voltage  | V <sub>RRM</sub>    |       |      |       |      |             |      |      |       |      |      |
| Working Peak Reverse Voltage   | V <sub>RWM</sub>    | 20    | 30   | 35    | 40   | 50          | 60   | 80   | 100   | V    |      |
| DC Blocking Voltage  | V <sub>R</sub>      |       |      |       |      |             |      |      |       |      |      |
| RMS Reverse Voltage  | V <sub>R(RMS)</sub> | 14    | 21   | 24.5  | 28   | 35          | 42   | 56   | 70    | V    |      |
| Average Rectified Output Current @T <sub>L</sub> = 90°C  | I <sub>o</sub>      | 8.0   |      |       |      |             |      |      |       | A    |      |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>    | 200.0 |      |       |      |             |      |      |       | A    |      |
| Forward Voltage @I <sub>F</sub> = 8.0A   | V <sub>FM</sub>     | 0.65  |      |       |      |             |      | 0.85 |       | V    |      |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                | I <sub>RM</sub>     |       |      |       |      | 1.0         |      |      |       |      | mA   |
|  |                     |       |      |       |      | 20          |      |      |       |      |      |
| Typical junction capacitance (Note1)   | C <sub>J</sub>      |       |      |       |      | 400         |      |      |       |      | pF   |
| Typical Thermal Resistance (Note 2)  | R <sub>θJA</sub>    |       |      |       |      | 18          |      |      |       |      | °C/W |
| Operating Temperature Range  | T <sub>j</sub>      |       |      |       |      | -65 to +125 |      |      |       |      | °C   |
| Storage Temperature Range  | T <sub>STG</sub>    |       |      |       |      | -65 to +150 |      |      |       |      | °C   |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

**FIG. 1- FORWARD CURRENT DERATING CURVE**

**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**

**FIG. 5-TYPICAL JUNCTION CAPACITANCE**

**FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE**
