

### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 2.0A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

### Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.01 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**

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

| Characteristic                                                                                                     | Symbol                                                 | DS215W      | Unit |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                             | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 150         | V    |
| RMS Reverse Voltage                                                                                                | V <sub>R(RMS)</sub>                                    | 105         | V    |
| Average Rectified Output Current @T <sub>L</sub> = 75°C                                                            | I <sub>O</sub>                                         | 2.0         | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 40          | A    |
| Forward Voltage @I <sub>F</sub> = 2.0A                                                                             | V <sub>FM</sub>                                        | 0.95        | 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>                                        | 0.3<br>5    | mA   |
| Typical Thermal Resistance (Note 1)                                                                                | R <sub>θJL</sub><br>R <sub>θJA</sub>                   | 28<br>110   | °C/W |
| Typical Junction Capacitance                                                                                       | C <sub>J</sub>                                         | 80          | pF   |
| Operating Temperature Range                                                                                        | T <sub>J</sub>                                         | -65 to +125 | °C   |
| Storage Temperature Range                                                                                          | T <sub>STG</sub>                                       | -65 to +150 | °C   |

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

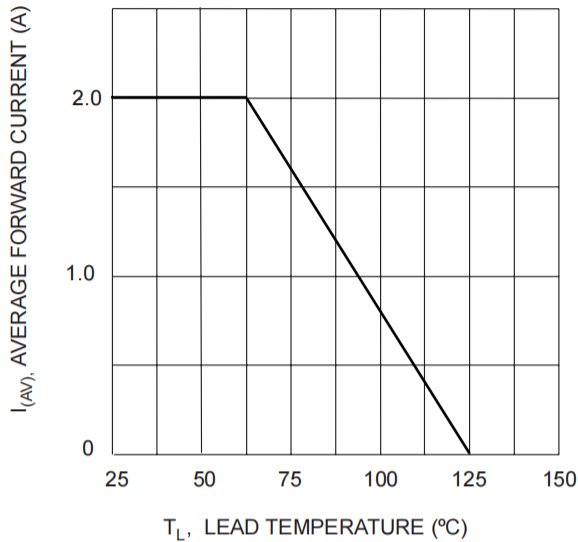


Fig. 1 Forward Current Derating Curve

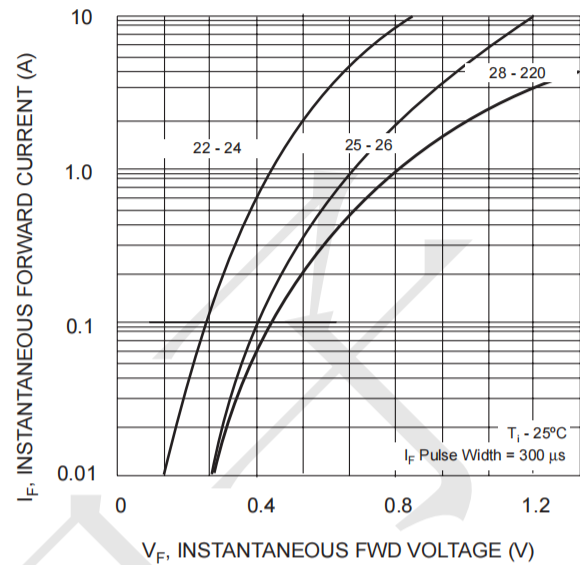


Fig. 2 Typ. Forward Characteristics

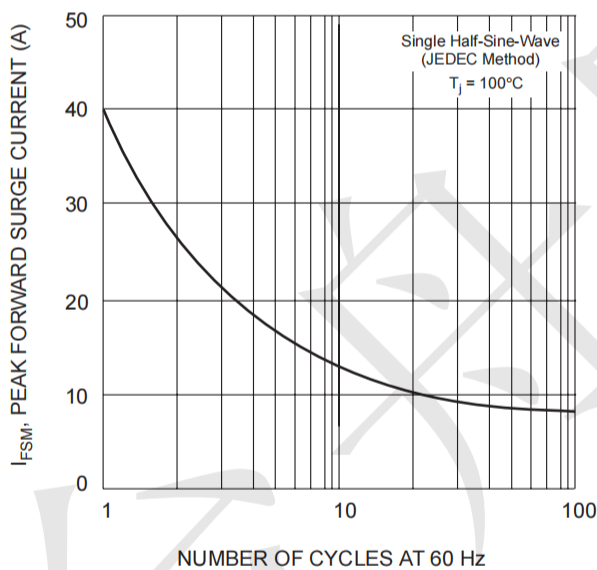


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

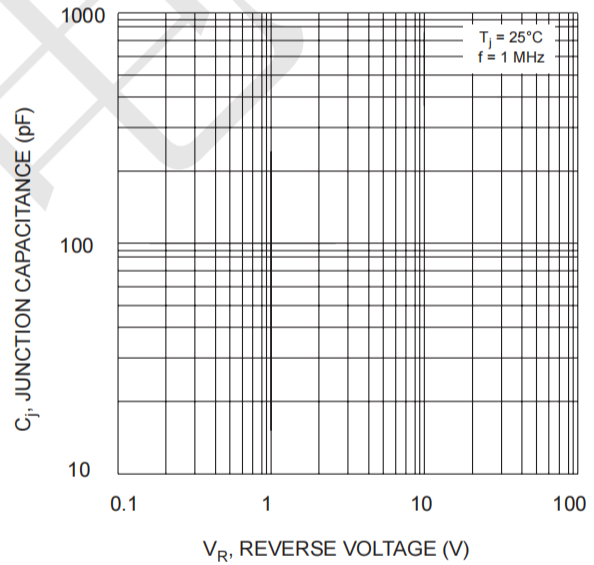


Fig. 4 Typical Junction Capacitance

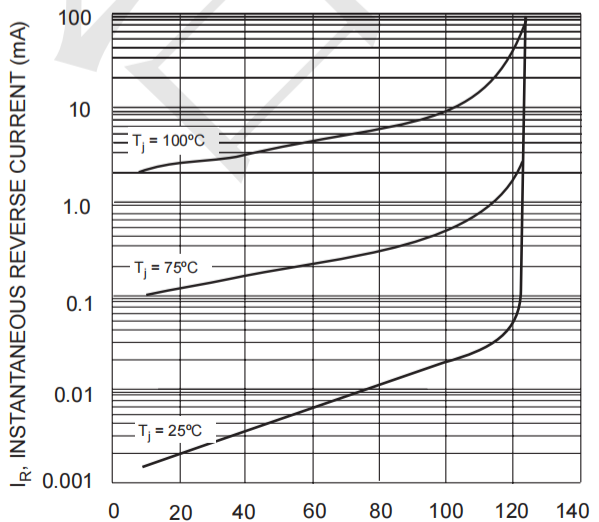
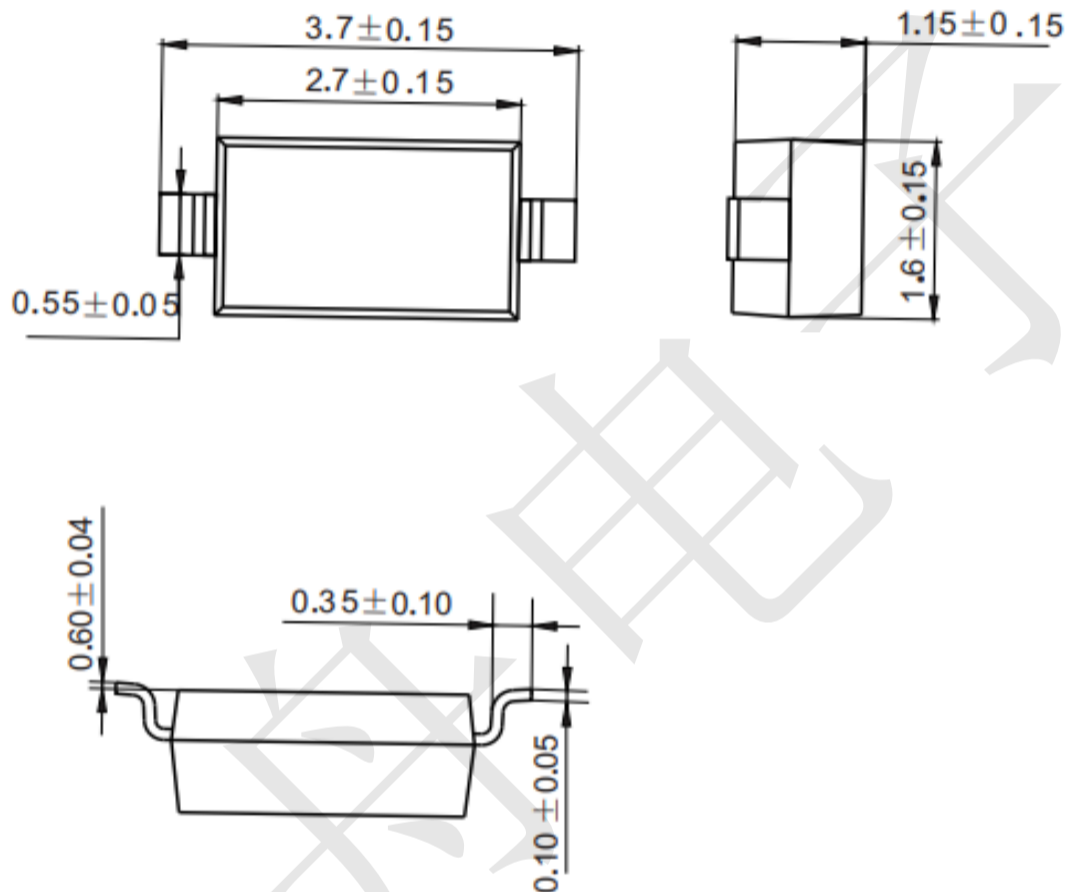


Fig. 5 Typical Reverse Characteristics

**Package information (Unit: mm)**

**SOD-123**



**Mounting Pad Layout (Unit: mm)**

