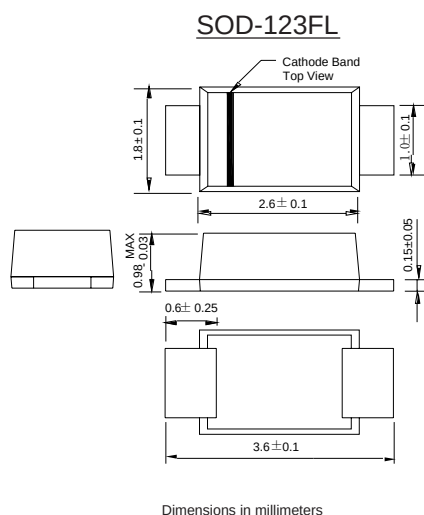




### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC SOD-123FL molded plastic body over passivated chip  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.0007 ounce, 0.02 grams

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

| Characteristics                                                                                         | Symbol           | MBRS220    | MBRS230 | MBRS240 | MBRS260 | MBRS2100   | Unit |
|---------------------------------------------------------------------------------------------------------|------------------|------------|---------|---------|---------|------------|------|
| Marking                                                                                                 |                  | K22        | K23     | K24     | K26     | K210       |      |
| Maximum Recurrent Peak Reverse Voltage                                                                  | V <sub>RRM</sub> | 20         | 30      | 40      | 60      | 100        | V    |
| Maximum RMS Voltage                                                                                     | V <sub>RMS</sub> | 14         | 21      | 28      | 42      | 70         | V    |
| Continuous Reverse Voltage                                                                              | V <sub>R</sub>   | 20         | 30      | 40      | 60      | 100        | V    |
| Maximum Instantaneous @T <sub>A</sub> =25°C                                                             | V <sub>F</sub>   | 0.55       |         |         | 0.7     | 0.85       | V    |
| Maximum Average Forward (Fig.1)                                                                         | I <sub>O</sub>   | 2.0        |         |         |         |            | A    |
| Peak Forward Surge Current<br>8.3 ms Single Half Sine-Wave<br>Superimposed on Rated Load (JEDEC Method) | I <sub>FSM</sub> | 50         |         |         |         |            | A    |
| Maximum DC Reverse Current @T <sub>A</sub> =25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> =125°C | I <sub>R</sub>   | 0.5<br>10  |         |         |         |            | mA   |
| Typical Thermal Resistance                                                                              | R <sub>θJA</sub> | 85(TYP)    |         |         |         |            | °C/W |
| Typical Junction Capacitance                                                                            | C <sub>J</sub>   | 160(TYP)   |         |         |         |            | pF   |
| Operating Temperature Range                                                                             | T <sub>J</sub>   | -55 to+150 |         |         |         | -55 to+175 | °C   |
| Storage Temperature Range                                                                               | T <sub>STG</sub> | -55 to+150 |         |         |         |            | °C   |

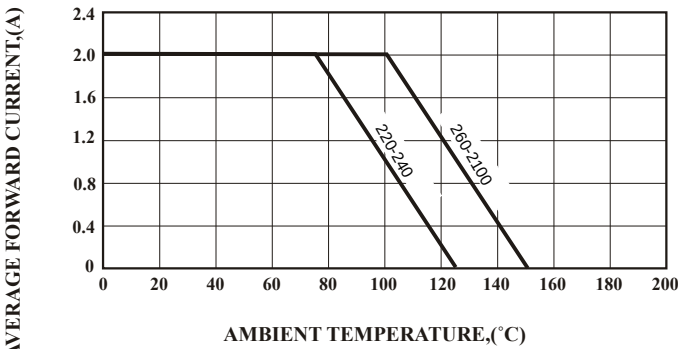


FIG.1 Typical Forward Current Derating Curve

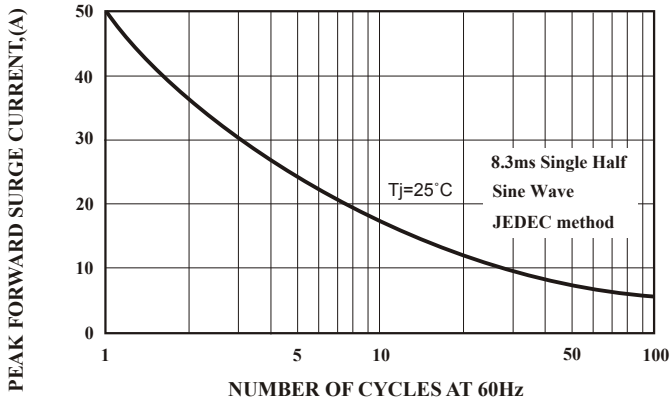


FIG.3 Maximum Non-Repetitive Forward Surge Current

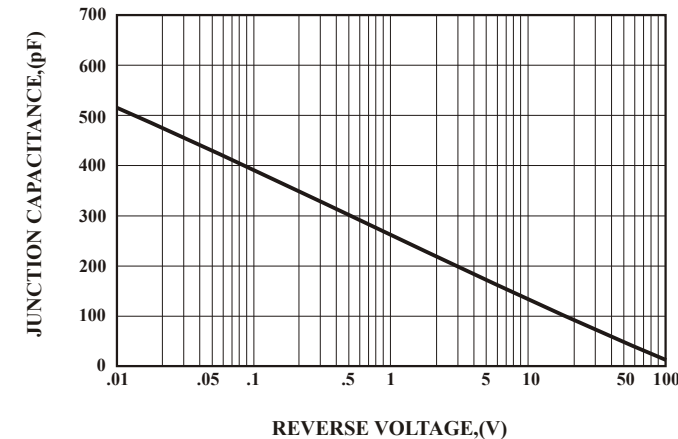


FIG.4 Typical Junction Capacitance

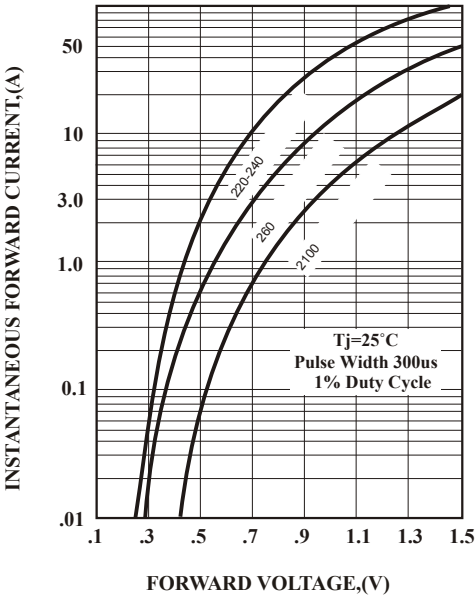


FIG.2 Typical Forward Characteristics

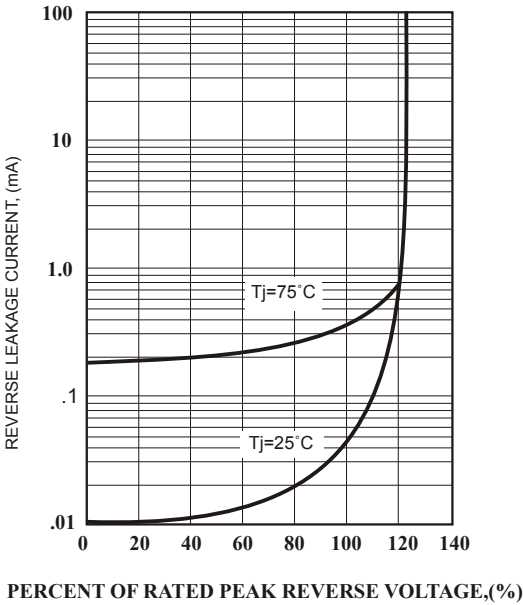
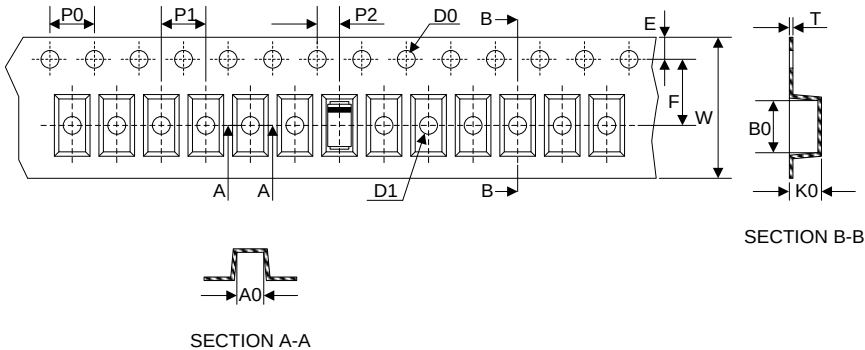
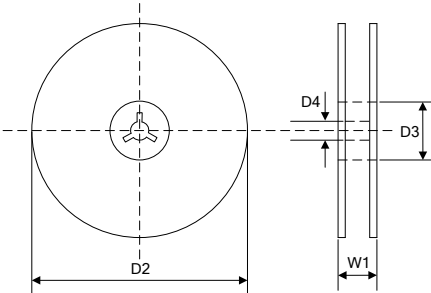
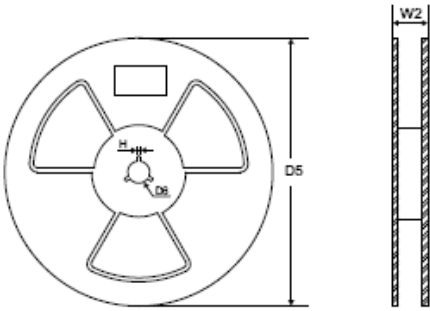


FIG.5 Typical Reverse Characteristics

Packaging

|                                                                                                     |                    |                |
|-----------------------------------------------------------------------------------------------------|--------------------|----------------|
| <p>Tape</p>        | Symbol             | Dimension (mm) |
|                                                                                                     | W                  | 12.00±0.20     |
|                                                                                                     | P0                 | 4.00±0.10      |
|                                                                                                     | P1                 | 4.00±0.10      |
|                                                                                                     | P2                 | 2.00±0.10      |
|                                                                                                     | D0                 | Φ1.5±0.10      |
|                                                                                                     | D1                 | Φ1.5±0.10      |
|                                                                                                     | E                  | 1.75±0.10      |
|                                                                                                     | F                  | 5.50±0.05      |
|                                                                                                     | A0                 | 2.79±0.10      |
|                                                                                                     | B0                 | 5.33±0.10      |
|                                                                                                     | K0                 | 2.55±0.15      |
|                                                                                                     | T                  | 0.25±0.05      |
| <p>7" Reel</p>    | D2                 | Φ178.0±2.0     |
|                                                                                                     | D3                 | Φ50.0Min.      |
|                                                                                                     | D4                 | Φ13.0±0.5      |
|                                                                                                     | W1                 | 16.0±2.0       |
|                                                                                                     | Quantity: 3000PCS  |                |
|                                                                                                     |                    |                |
| <p>13" Reel</p>  | D5                 | Φ330.0±2.0     |
|                                                                                                     | D6                 | Φ13.5±0.5      |
|                                                                                                     | H                  | 2.5±1.0        |
|                                                                                                     | W2                 | 16.0±2.0       |
|                                                                                                     | Quantity: 10000PCS |                |
|                                                                                                     |                    |                |