



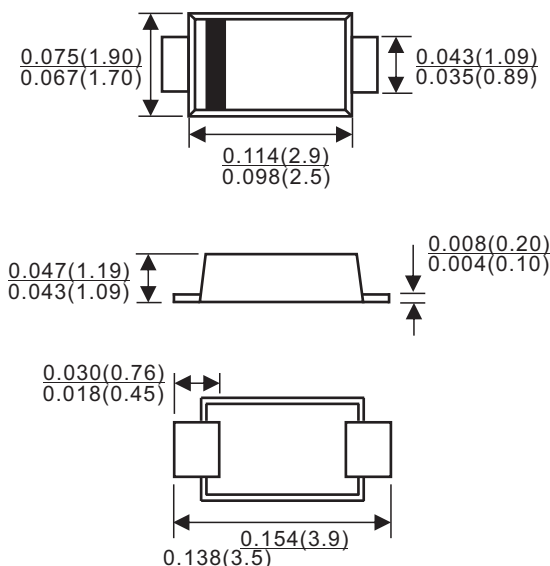
SOD-123FL

## Features

- ✧ Low profile package
- ✧ Ideal for automated placement
- ✧ Ultrafast reverse recovery time
- ✧ Low power losses, high efficiency
- ✧ Low forward voltage drop
- ✧ High surge capability
- ✧ High temperature soldering:  
260°C/10 seconds at terminals
- ✧ Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

## Mechanical Data

- ✧ **Case:** JEDEC SOD-123FL molded plastic body over passivated chip
- ✧ **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- ✧ **Polarity:** Laser band denotes cathode end
- ✧ **Weight:** 0.017gram



Dimensions in inches and(millimeters)

## Maximum Ratings & Thermal Characteristics & Electrical Characteristics

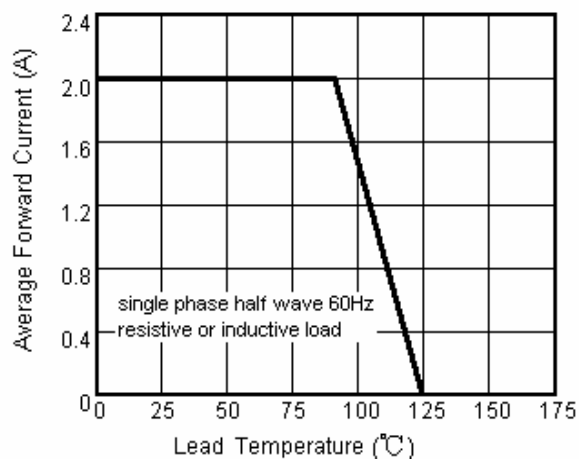
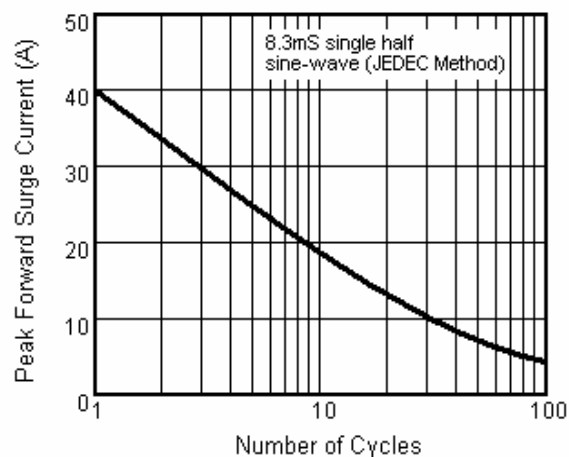
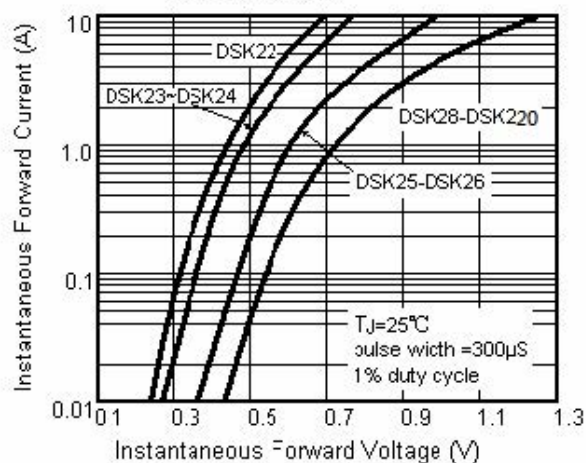
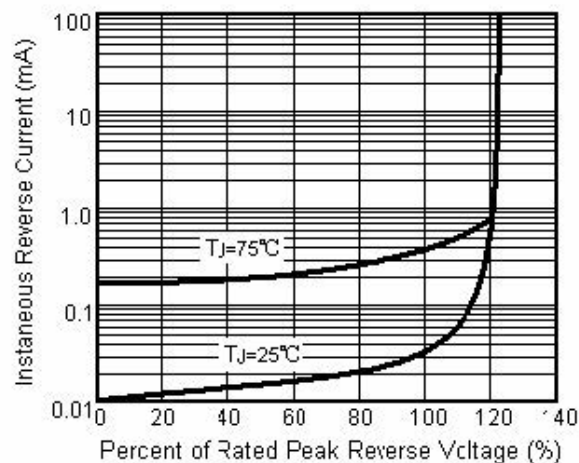
(T<sub>A</sub> = 25 °C unless otherwise noted)

|                                                                                                             | SYMBOLS           | DSK22       | DSK23 | DSK24 | DSK25 | DSK26 | DS K27 | DSK 28      | DSK29 | DSK210 | DSK215 | DSK220 | UNITS |       |
|-------------------------------------------------------------------------------------------------------------|-------------------|-------------|-------|-------|-------|-------|--------|-------------|-------|--------|--------|--------|-------|-------|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>  | 20          | 30    | 40    | 50    | 60    | 70     | 80          | 90    | 100    | 150    | 200    | VOLTS |       |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>  | 14          | 21    | 28    | 35    | 42    | 49     | 56          | 63    | 70     | 83     | 90     | VOLTS |       |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>   | 20          | 30    | 40    | 50    | 60    | 70     | 80          | 90    | 100    | 150    | 200    | VOLTS |       |
| Maximum average forward rectified current                                                                   | I <sub>(AV)</sub> | 2.0         |       |       |       |       |        |             |       |        |        |        | Amp   |       |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method)      | I <sub>FSM</sub>  | 40.0        |       |       |       |       |        |             |       |        |        |        | Amps  |       |
| Maximum instantaneous forward voltage at 2.0A                                                               | V <sub>F</sub>    | 0.55        |       |       | 0.70  |       |        | 0.85        |       |        |        |        |       | Volts |
| Maximum DC reverse current    T <sub>A</sub> =25°C<br>at rated DC blocking voltage    T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.5         |       |       |       |       |        |             |       |        |        |        | mA    |       |
|                                                                                                             |                   | 10.0        |       |       |       |       | 5.0    |             |       |        |        |        |       |       |
| Typical junction capacitance (NOTE 1)                                                                       | C <sub>J</sub>    | 220         |       |       |       | 80    |        |             |       |        |        |        |       | pF    |
| Operating junction temperature range                                                                        | T <sub>J</sub>    | -65 to +125 |       |       |       |       |        | -65 to +150 |       |        |        |        |       | °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.

**Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

**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**


| PACKAGE   | SPQ/PCS   | CARTON<br>SPQ/PCS | CARTON<br>SIZE/CM | CARTON<br>GW/KG | CARTON<br>NW/KG |
|-----------|-----------|-------------------|-------------------|-----------------|-----------------|
| SOD-123FL | 3000/REEL | 90000             | 40X20X22          | 5.00            | 4.00            |