

### Major Ratings and Characteristics

$I_{F(AV)}$	0.5 A
$V_{RRM}$	50 V to 1000 V
$I_{FSM}$	15 A
$I_R$	5 $\mu$ A
$V_F$	1.1 V
$T_j$ max.	150 °C

### Features

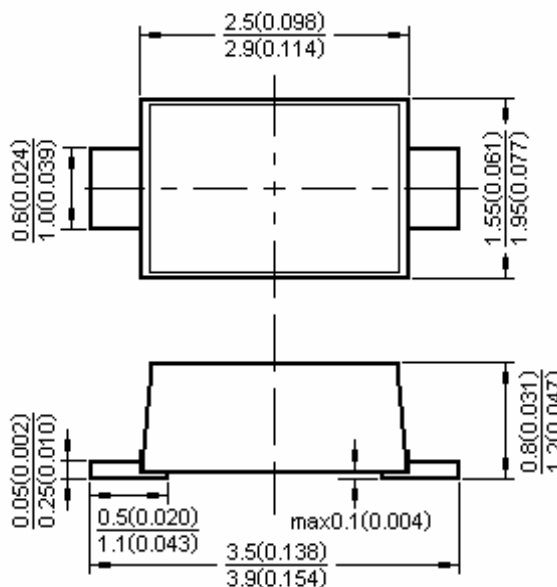
- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:  
260°C/10 seconds at terminals
- Component in accordance to  
RoHS 2002/95/1 and WEEE 2002/96/EC

### Mechanical Date

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



SOD-123FL



Dimensions in millimeters and (inches)

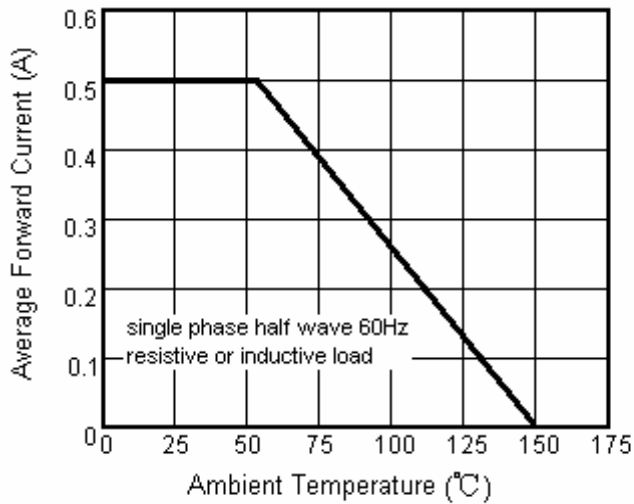
### Maximum Ratings & Thermal Characteristics & Electrical Characteristics

( $T_A = 25\text{ °C}$  unless otherwise noted)

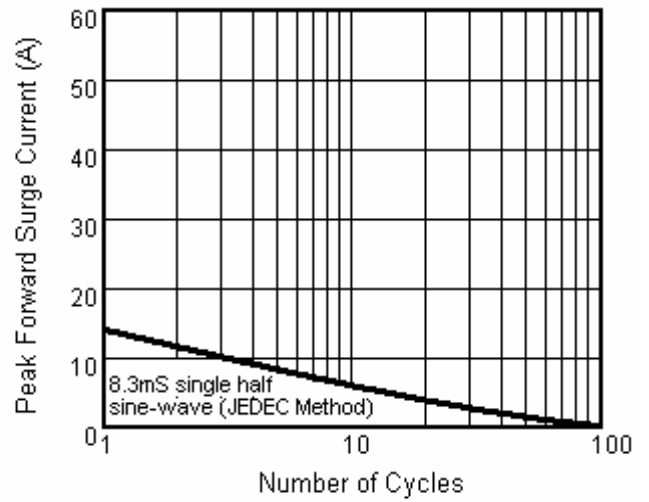
	DSR-	Symbol	0.5A	0.5B	0.5D	0.5G	0.5J	0.5K	0.5M	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage		$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current		$I_{F(AV)}$	0.5							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load		$I_{FSM}$	15							A
Maximum instantaneous forward voltage at 0.5A		$V_F$	1.1							V
Maximum DC reverse current $T_A = 25\text{ °C}$ at Rated DC blocking voltage $T_A = 100\text{ °C}$		$I_R$	5.0 50							$\mu$ A
Typical junction capacitance at 4.0 V ,1MHz		$C_J$	14							p F
Operating junction and storage temperature range		$T_J, T_{STG}$	-55 to +150							°C

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

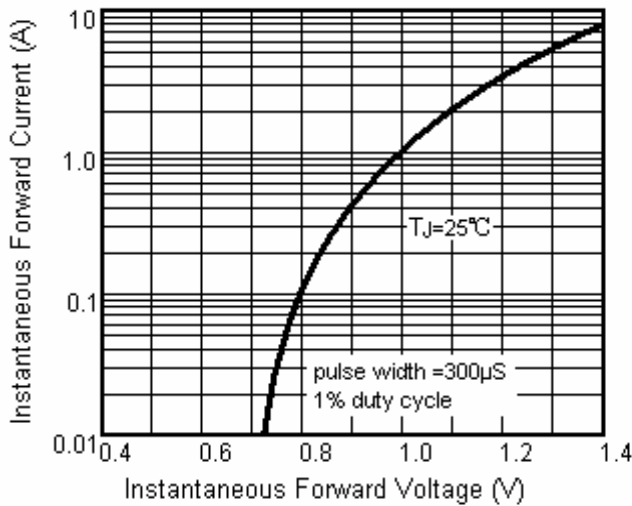
**Fig.1 Forward Current Derating Curve**



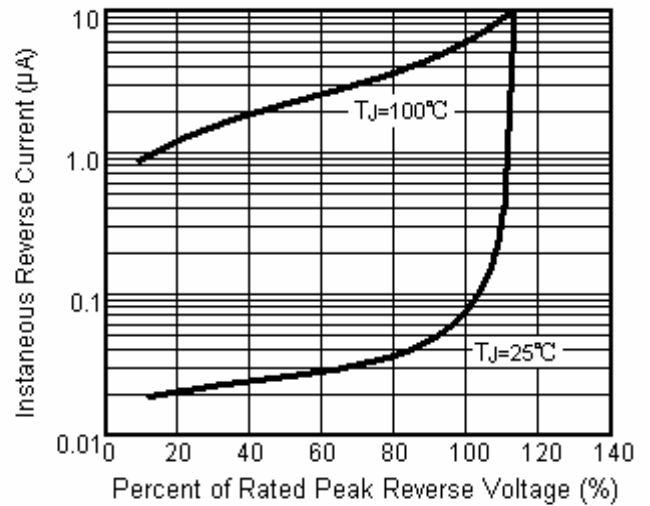
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Junction Capacitance**

