



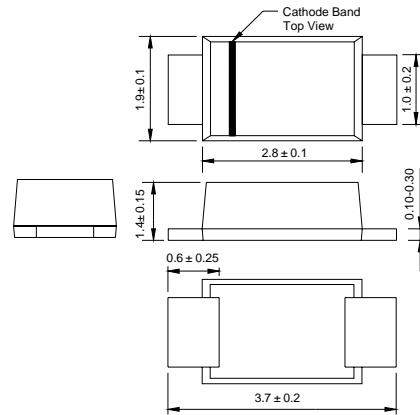
### Features

- 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 Data

- **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
- **Weight:** 0.017gram

### SOD-123FL



Dimensions in millimeters

### Maximum Ratings & Thermal Characteristics & Electrical Characteristics

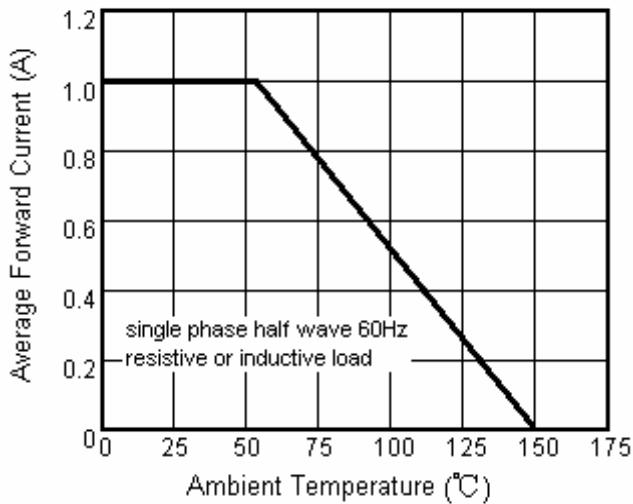
( $T_A = 25^\circ\text{C}$  unless otherwise noted)

	Symbol	DSF1A	DSF1B	DSF1C	DSF1D	DSF1F	DSF1G	DSF1J	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum average forward rectified current	$I_{F(AV)}$	1							A
Peak forward surge current 8.3 mS single half sine-wave superimposed on rated load	$I_{FSM}$	25							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.95			1.25		1.70		V
Maximum DC reverse current at Rated DC blocking voltage	$I_R$	$T_A = 25^\circ\text{C}$ 5.0			$T_A = 100^\circ\text{C}$ 150				$\mu\text{A}$
Maximum reverse recovery time at $I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $t_{rr} = 0.25\text{A}$	$t_{rr}$	35							nS
Typical thermal resistance	$R_{\theta JA}$	150							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

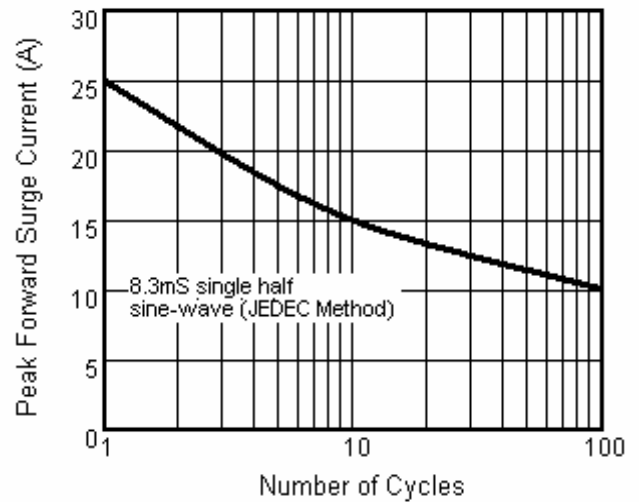
Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas ( $\approx 35\ \mu\text{m}$  thick)

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

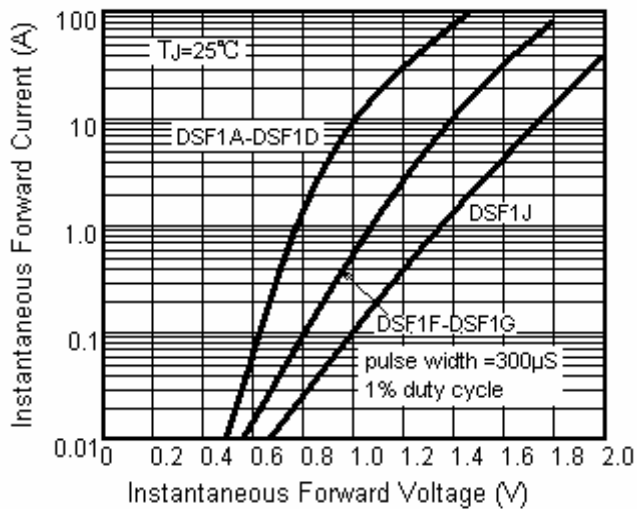
**Fig.1 Forward Current Derating Curve**



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



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**

