



Major Ratings and Characteristics

$I_{F(AV)}$	1.0 A
V_{RRM}	50 V to 600 V
I_{FSM}	25 A
I_R	5 μ A
V_F	0.95V, 1.25V, 1.70V
T_j max.	150 °C

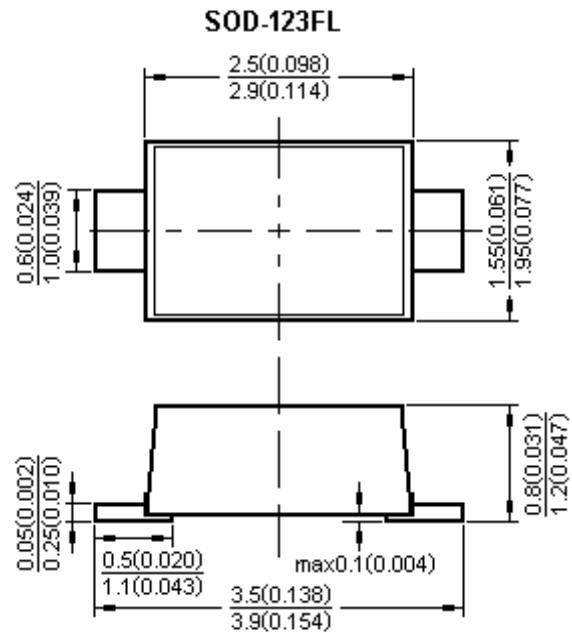


Features

- 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
- **Weight:** 0.017gram



Dimensions in millimeters and (inches)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

($T_A = 25\text{ °C}$ 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	$T_A = 25\text{ °C}$ 5.0			$T_A = 100\text{ °C}$ 150				μ A
Maximum reverse recovery time at $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$	t_{rr}	35							nS
Typical thermal resistance	$R_{\theta JA}$	150							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

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



DSF1A~DSF1J Surface Mount Standard Rectifiers

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

Fig.1 Forward Current Derating Curve

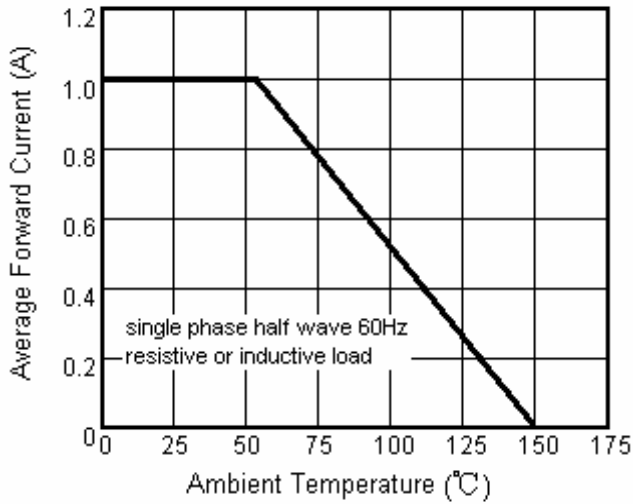


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

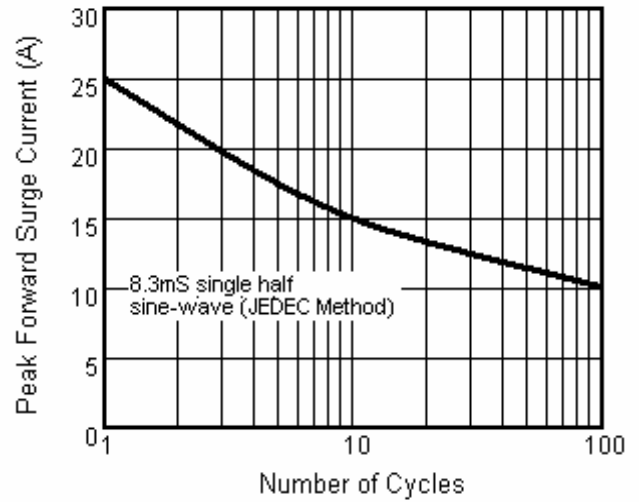


Fig.3 Typical Instantaneous Forward Characteristics

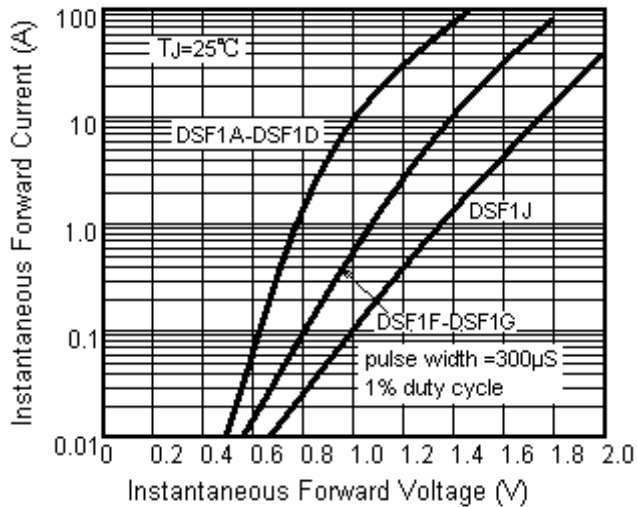


Fig.4 Typical Reverse Characteristics

