

F1 THRU F7

Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 Volts Forward Current - 1 Ampere

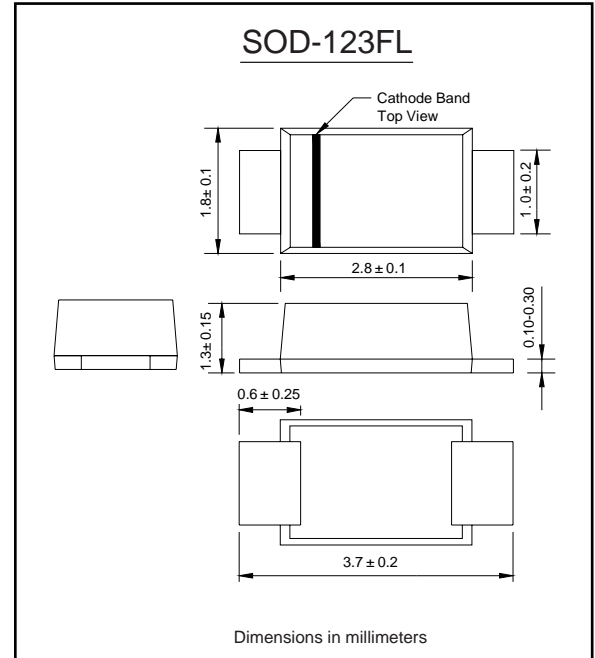


Features

- 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



Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(TA = 25 °C unless otherwise noted)

	Symbol	F1	F2	F3	F4	F5	F6	F7	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	$I_{F(AV)}$	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	1.3							V
Maximum DC reverse current at Rated DC blocking voltage	I_R	5.0 50							μ A
Maximum reverse recovery time at $I_F = 0.5$ A , $I_R = 1.0$ A , $I_{rr} = 0.25$ A	t_{rr}	150			250		500		nS
Typical junction capacitance at 4.0 V , 1MHz	C_J	15							p F
Operating junction and storage temperature range	T_J, T	-55 to +150							°C

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

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Fig.1 Forward Current Derating Curve

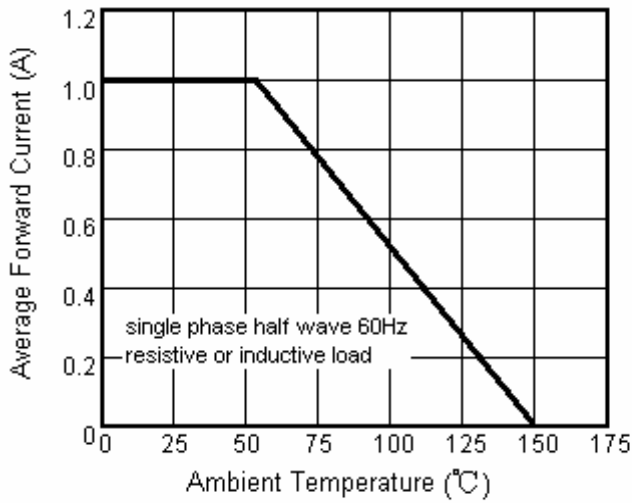


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

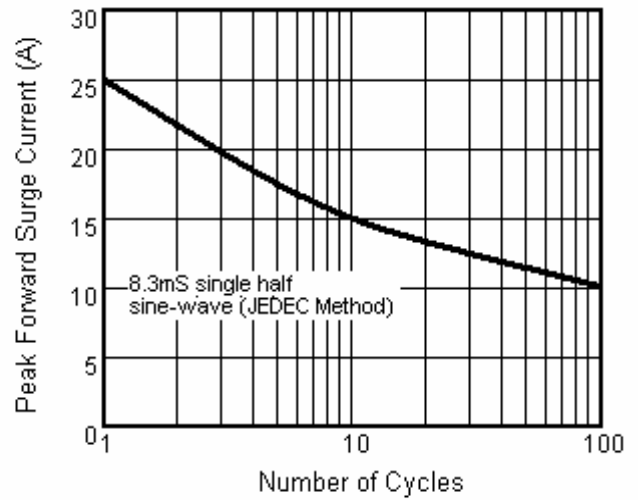


Fig.3 Typical Instantaneous Forward Characteristics

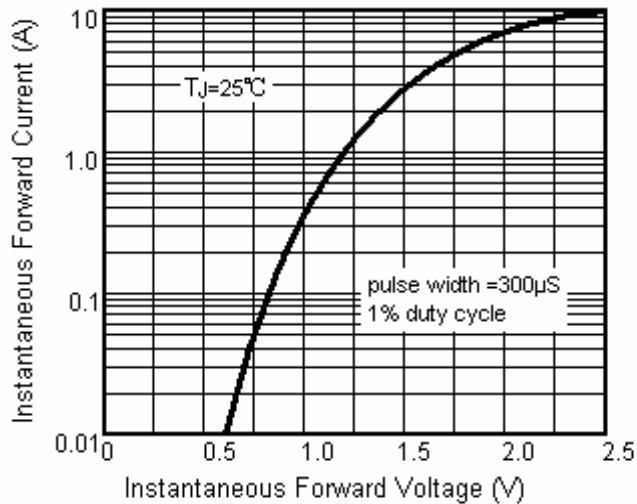


Fig.4 Typical Reverse Characteristics

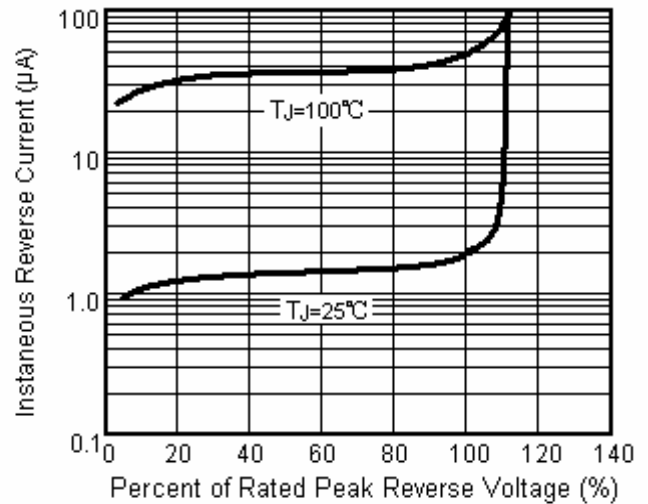


Fig.5 Typical Junction Capacitance

