Major Ratings and Characteristics

|	
$I_{F(AV)}$	0.3 A
V_{RRM}	50 V to 1000 V
I_{FSM}	10A
I_R	5 μA
V_F	1.3V
T_j max.	150 °C
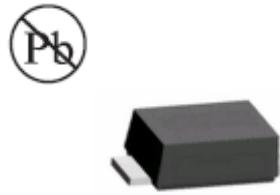
Features

- 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℃/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

SOD-123FL
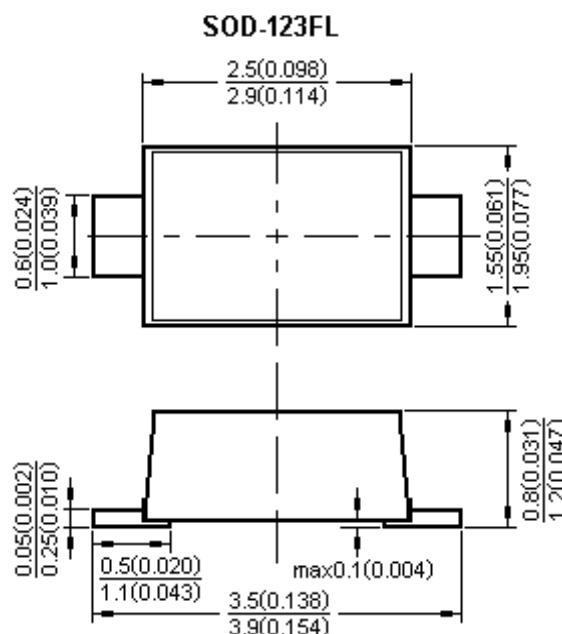
Dimensions in millimeters and (inches)

Maximum Ratings & Thermal Characteristics & Electrical Characteristics

(T_A = 25 °C unless otherwise noted)

	Symbol	DFR 0.3A	DFR 0.3B	DFR 0.3D	DFR 0.3G	DFR 0.3J	DFR 0.3K	DFR 0.3M	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	$I_{F(AV)}$	0.3							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	10							A
Maximum instantaneous forward voltage at 0.3A	V_F	1.3							V
Maximum DC reverse current T_A = 25 ℃ at Rated DC blocking voltage T_A = 100℃	I_R	5.0 50							μ A
Maximum reverse recovery time at I_F = 0.3 A , I_R = 1.0 A , I_{rr} = 0.25 A	t_{rr}	150				250	500		nS
Operating junction and storage temperature range	T_J, T_{STG}	−55 to +150							℃

Characteristic Curves (T$_A$=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

single phase half wave 60Hz resistive or inductive load
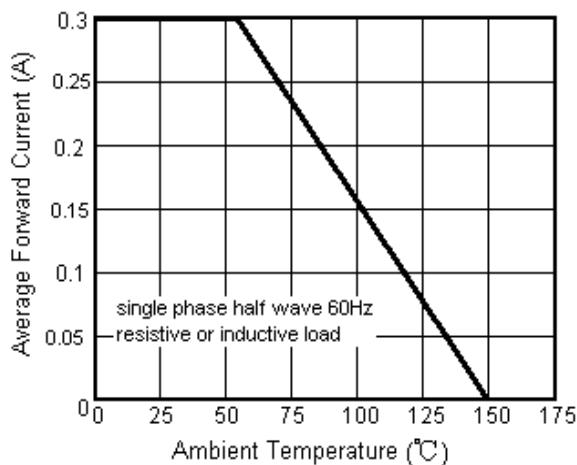
Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

8.3mS single half sine-wave (JEDEC Method)
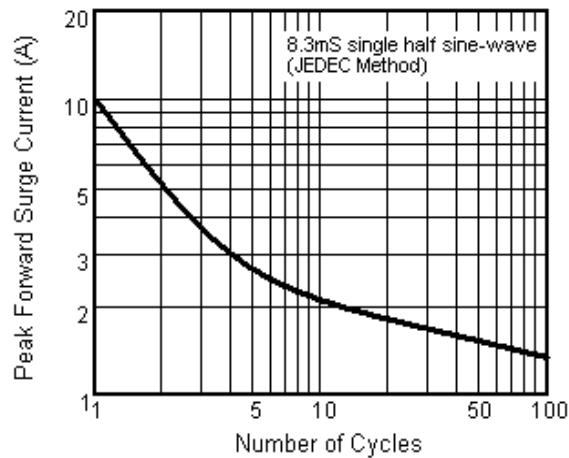
Fig.3 Typical Instantaneous Forward Characteristics

TJ=25℃

pulse width =300μS 1% duty cycle
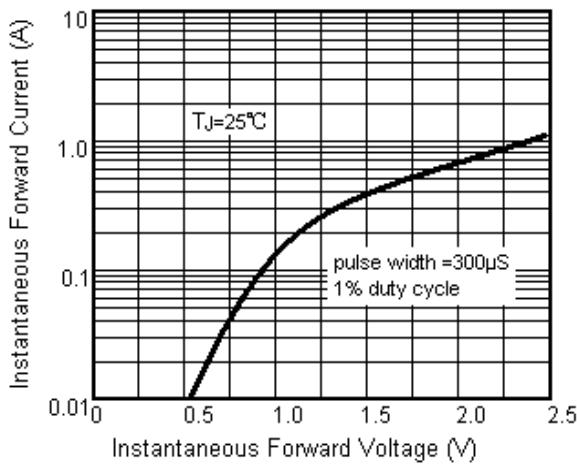
Fig.4 Typical Reverse Characteristics

TJ=100℃

TJ=25℃

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