



## Features

- ✧ Glass passivated device
- ✧ Ideal for surface mouted applications
- ✧ Low leakage current
- ✧ Metallurgically bonded construction
- ✧ High temperature soldering:  
250°C/10 seconds at terminals

## Mechanical Data

- ✧ Case: JEDEC SOD-123FL, molded plastic over passivated chip
- ✧ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.0008 ounces, 0.022 gram
- ✧ Mounting position: Any

## Marking Information

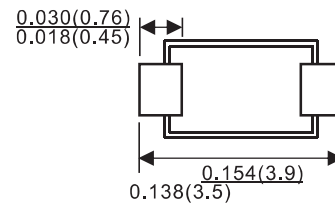
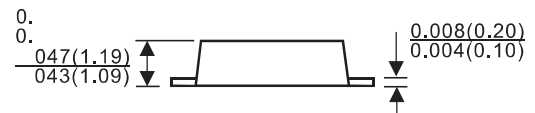
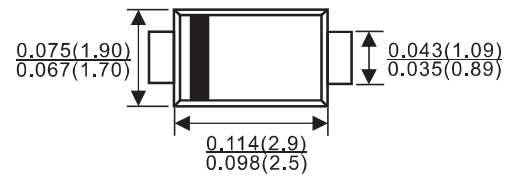


**LGE: Lu Guang Electronic**  
**XXXX: marking code (F1-F7)**

**REVERSE VOLTAGE: 100 - 1000 V**

**CURRENT: 1.0 A**

SOD-123FL



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single hase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

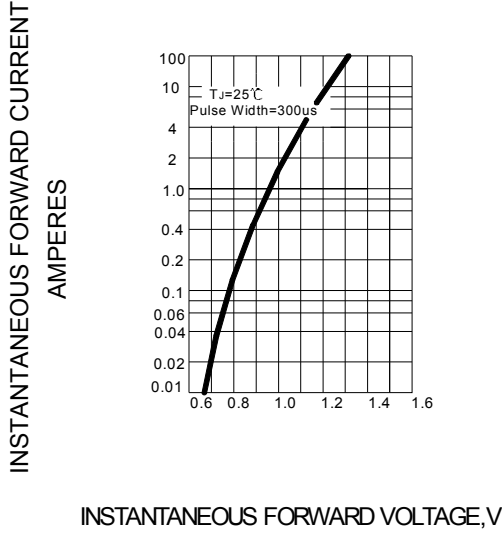
### ABSOLUTE RATINGS

		F1A	F1B	F1D	F1G	F1J	F1K	F1M	UNITS
Maximum recurrent 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 @ $T_A=75$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum instantaneous forward voltage @ $I_{FM}=1.0A$ (Note 1)	$V_F$	1.15							V
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	$I_R$	5 50							$\mu A$
Maximum reverse recovery time	$T_{rr}$	150			250		500		ns
Typical junction capacitance measured at $f=1MHz, V_R=4.0V$	$C_J$	4							p F
Typical thermal resistance junction to lead	$R_{\theta JL}$	20							/W
Operating temperature range	$T_j$	- 55 --- + 150							
Storage temperature range	$T_{STG}$	- 55 --- + 150							

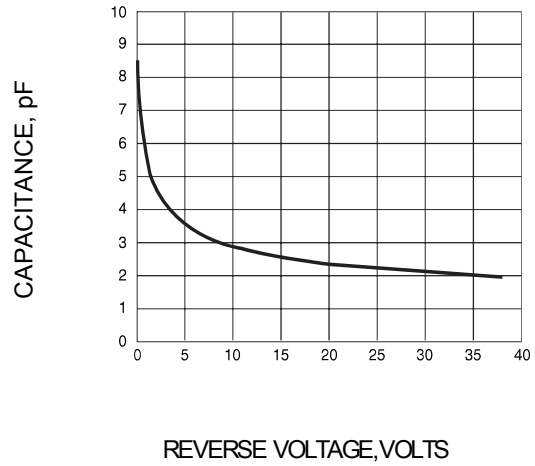
NOTE1. Pulse test: pulse width 300 $\mu$ sec, duty cycle 2%.

## Ratings AND Characteristic Curves

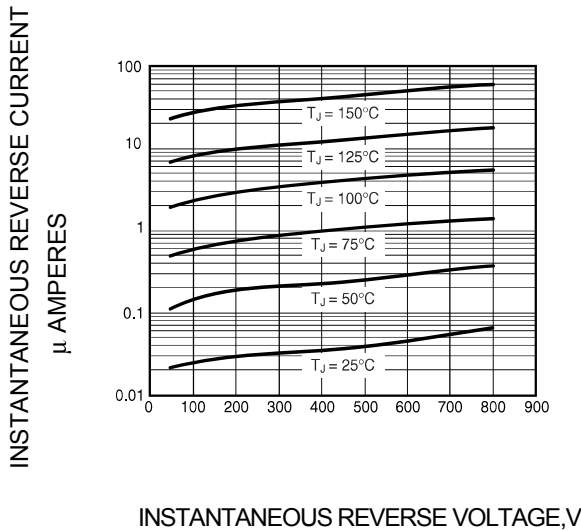
**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**



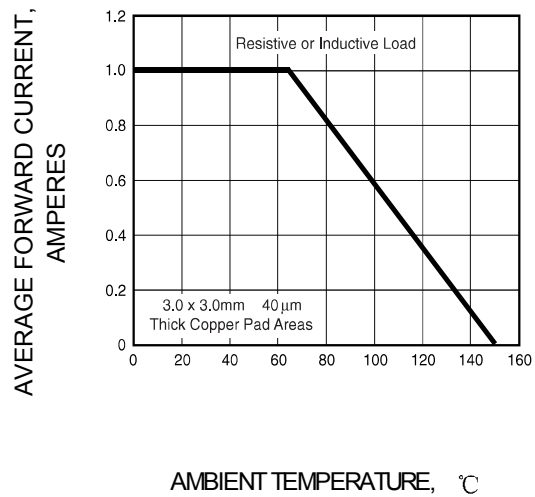
**FIG.2 – TYPICAL JUNCTION CAPACITANCE**



**FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS**



**FIG.4 – FORWARD DERATING CURVE**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123FL	3000/REEL	90000	40X20X22	5.00	4.00