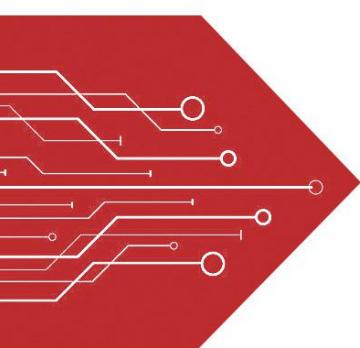


# **MSKSEMI**

SEMICONDUCTOR



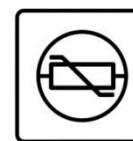
ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet



SOD-123FL



## Features

- Glass passivated or planar junction
- Excellent clamping capability
- Repetition rate (duty cycle): 0.01%
- Low profile package and low inductance
- Fast response time: typically less than 1.0ps from 0V to  $V_{BR\min}$ .
- High temperature soldering: 260°C/10s at terminals.
- For surface mounted applications in order to optimize board space.

## Mechanical Characteristics

### Package:SOD-123FL

- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Polarity: Color band denotes cathode except bi-directional models
- Weight: 0.017g
- Terminal Connections: See Diagram Below
- Marking Information: See Below

## Applications

- I/O Interface.
- Power lines
- Automotive and Telecommunication

## Industrial Electronics

### Electrical Characteristics (T=25°C)

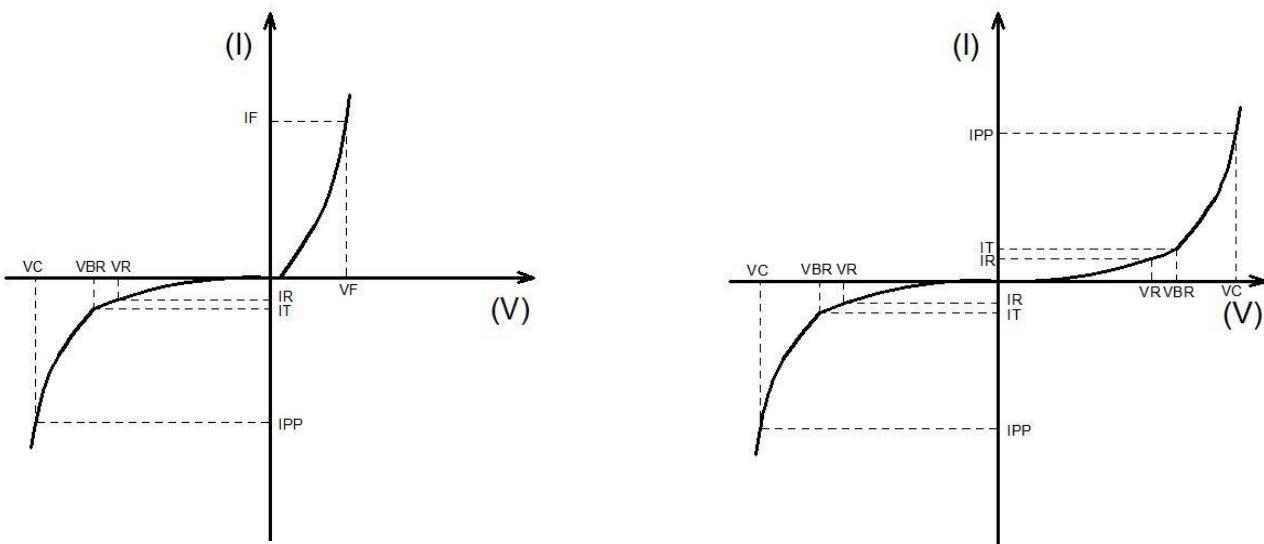
		$V_R$	$I_R@V_R$	$V_{BR}@I_T$		$I_T$	$V_c@I_{PP}$	$I_{PP}^{\oplus}$
P/N	MARK	V	$\mu A$	min(V)	max(V)	mA	max(V)	A
SMF3.3A	3.3A	3.3	200	5.2	6	10	8.0	25.00

Absolute Maximum Ratings(T=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 10/1000μs waveform	$P_{PP}$	200	W
Steady state power dissipation at $T_L=75^\circ\text{C}$	$P_{M(AV)}$	1.0	W
Operating junction temperature range	$T_j$	-55 to +125	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C

Ratings And V-I Characteristics Curves (T=25°C, unless otherwise noted)

FIG1: V-I cure characteristics



Symbol	Parameter
$I_F$	Mean Forward Current
$V_F$	Maximum Forward Voltage @ $I_F$
$V_R$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_R$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$

### Typical Characteristics

FIG2: Pulse Derating Curve

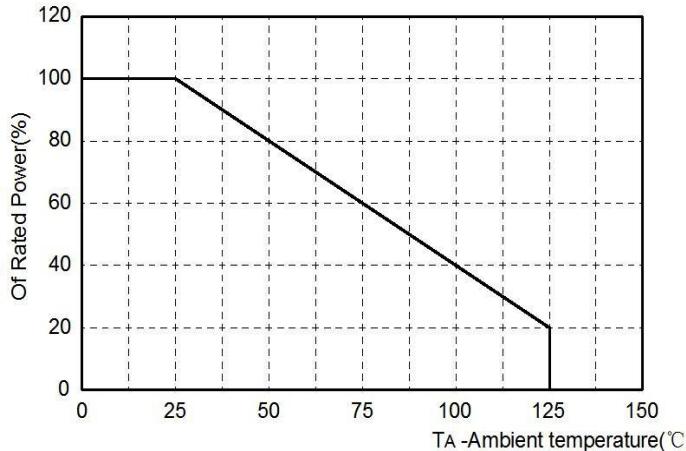


FIG3: Pulse Waveform

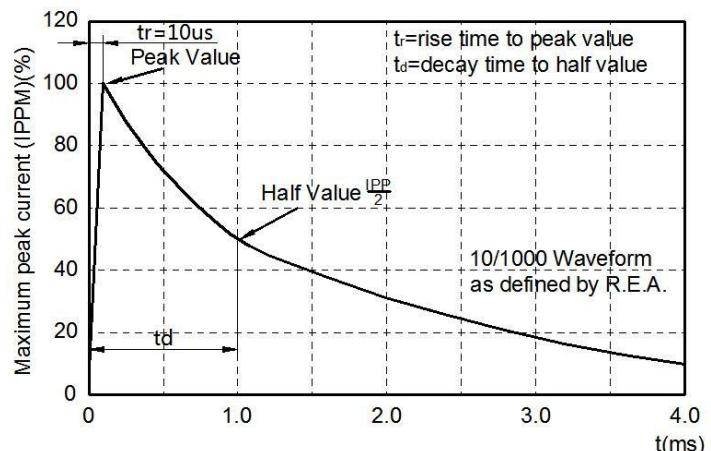


FIG4: Peak Pulse Power Rating Curve

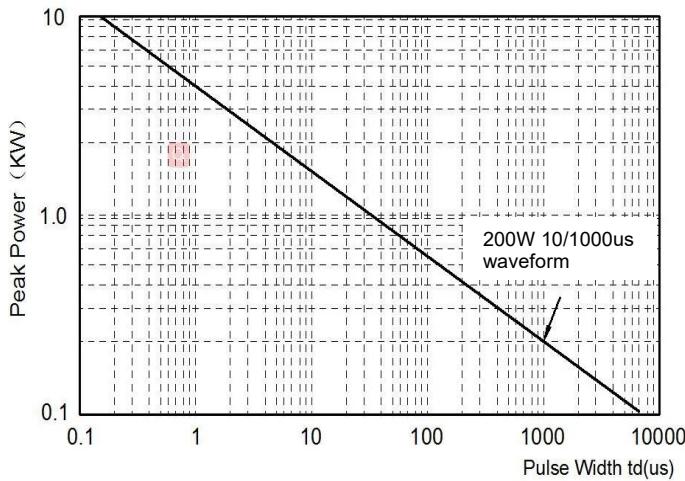
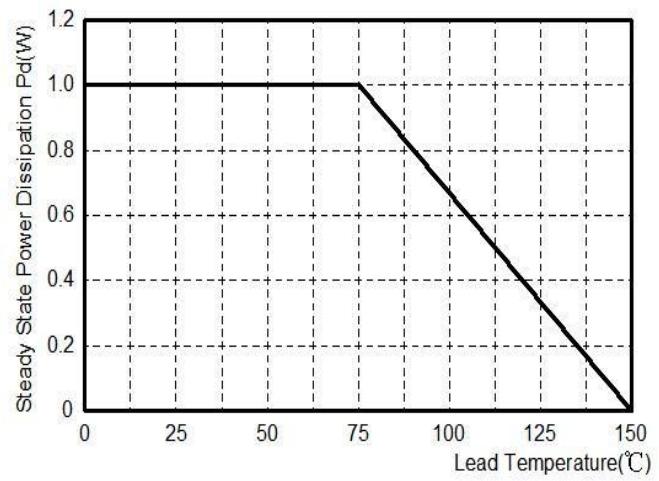
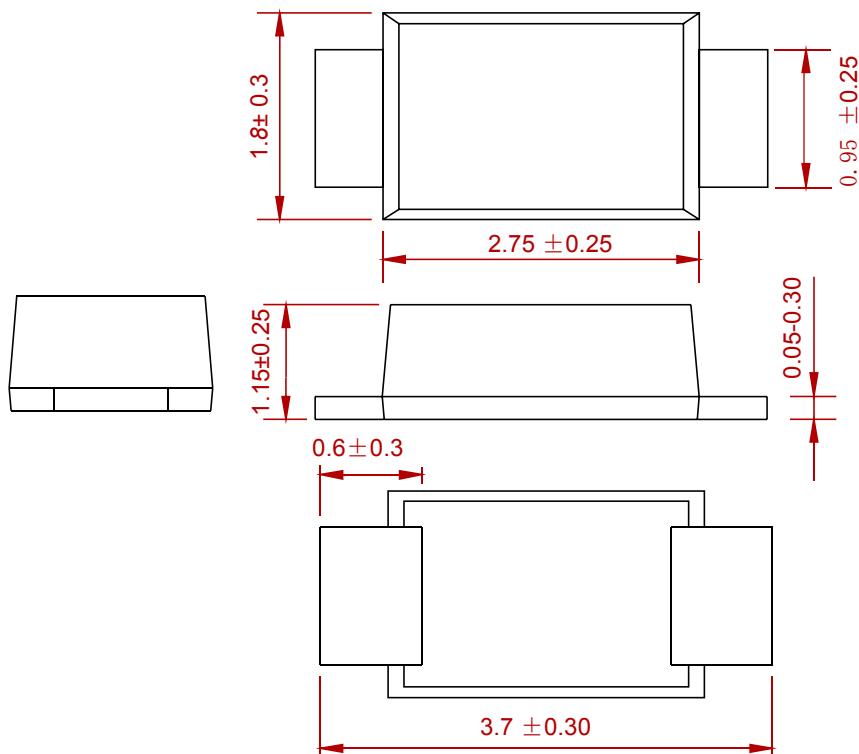


FIG5: Steady State Power Dissipation

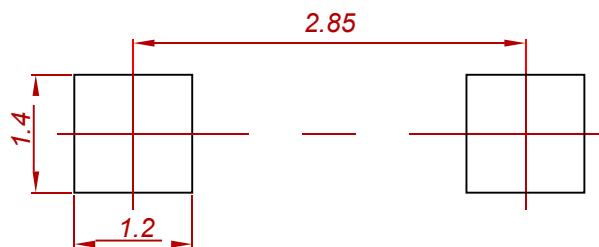


## PACKAGE MECHANICAL DATA



*Dimensions in millimeters*

## Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

## REEL SPECIFICATION

P/N	PKG	QTY
SMF3.3A	SOD-123FL	3000

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