

## Features

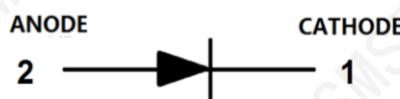
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- High temperature soldering guaranteed:  
260 °C/10 seconds,0.375"(9.5mm) lead length,  
5 lbs. (2.3kg) tension



## Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

SOD123FL



## Maximum Ratings and Electrical Characteristics

Rating at 25°C  
 ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	PMEG2010ER,115-JSM		UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>	20		V
	V <sub>RWM</sub>			
	V <sub>DC</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	14		V
Average Rectified Output Current @T <sub>L</sub> =90°C	I <sub>F(AV)</sub>	1.0		A
Non-Repetitive Peak Forward Surge @T <sub>j</sub> =25 °C Current 8.3ms Single half sine-wave@T <sub>j</sub> =125 °C Superimposed On Rated Load (JEDEC Method)	I <sub>FSM</sub>	30 24		A
Non-Repetitive Peak Forward Surge @T <sub>j</sub> =25 °C Current 1.0ms Single half sine-wave@T <sub>j</sub> =125°C Superimposed On Rated Load (JEDEC Method)	I <sub>FSM</sub>	60 48		A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I <sub>FSM</sub>	22.5		A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	3.735		A <sup>2</sup> s
Forward Voltage per element @IF=1.0A	V <sub>FM</sub>	0.55		V
	T <sub>yp</sub>	0.50		
Peak Reverse Current @T <sub>A</sub> =25 °C At Rated DC Blocking Voltage @T <sub>A</sub> =100 °C	I <sub>R</sub>	0.1		mA
		10		
Typical Junction Capacitance(Note1)	C <sub>J</sub>	35		pF
Typical Thermal Resistance	R <sub>θJA</sub>	65		°C/W
Operating junction temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to+150		°C

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Typical Forward Current Derating Curve

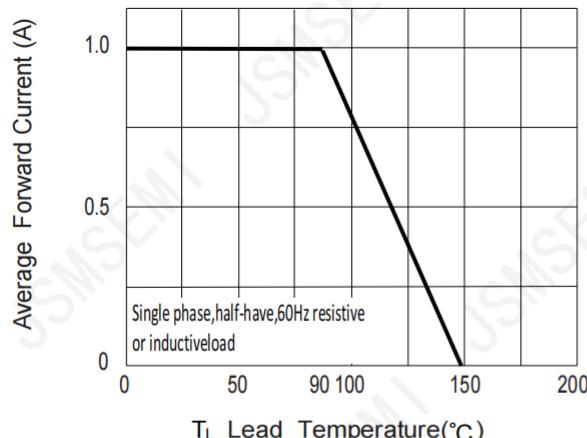


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

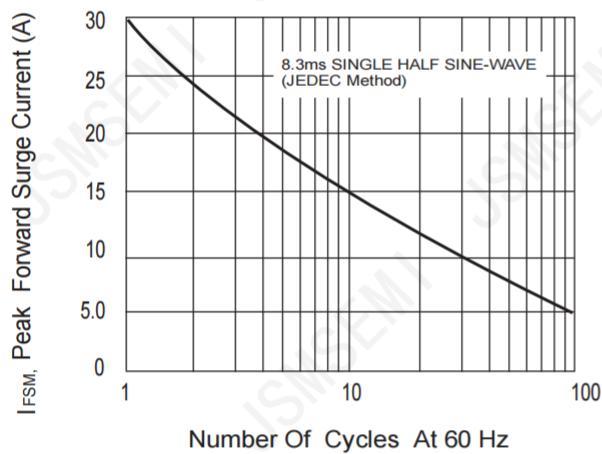


Fig.5 Typical Capacitance

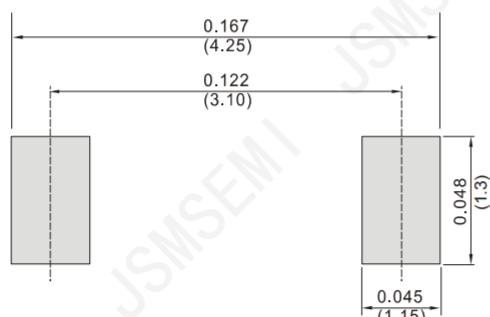


Fig. 2 Typical Instantaneous Forward Characteristics

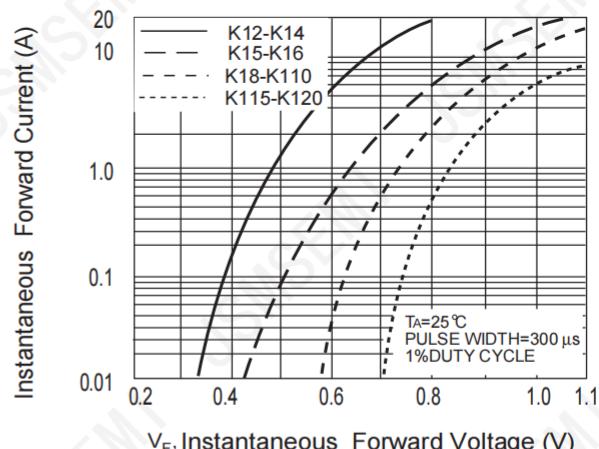
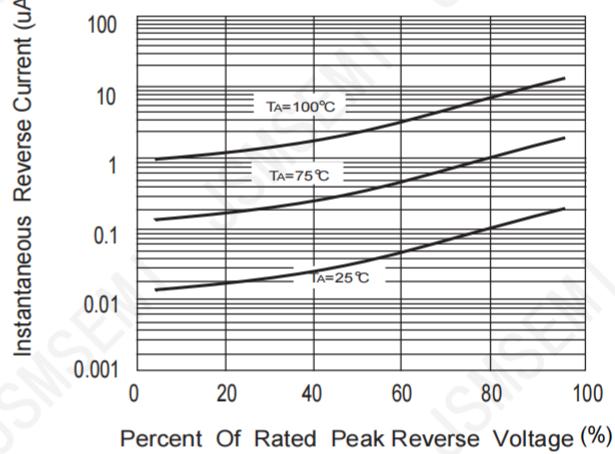


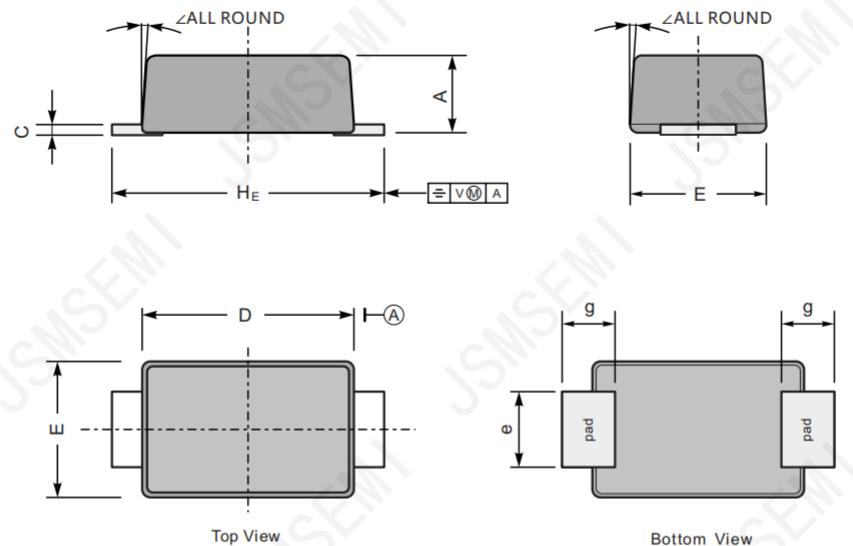
Fig.4 Typical Reverse Characteristics



## Package Information

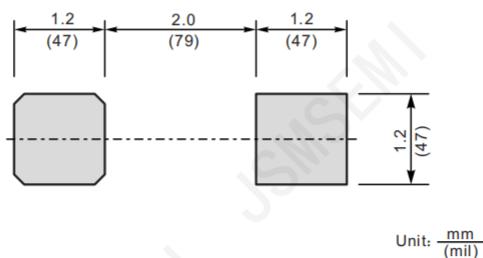
SOD-123FL

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	H <sub>E</sub>	$\angle$
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	$7^\circ$
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	$7^\circ$
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size



## Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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