

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



SOD-123FL

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



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	PMEG4010ER,115-JSM	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	40	V
	V _{RWM}		
	V _{DC}		
RMS Reverse Voltage	V _{RMS}	28	V
Average Rectified Output Current @T _L =90°C	I _{F(AV)}	1.0	A
Non-Repetitive Peak Forward Surge @T _j =25 °C Current 8.3ms Single half sine-wave @T _j =125 °C Superimposed On Rated Load (JEDEC Method)	I _{FSM}	30	A
		24	
		60	
Non-Repetitive Peak Forward Surge @T _j =25 °C Current 1.0ms Single half sine-wave @T _j =125°C Superimposed On Rated Load (JEDEC Method)	I _{FSM}	48	A
		22.5	
10000 times of the wave surge current (time width 1ms, time interval 3s)	I _{FSM}	22.5	A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	3.735	A ² s
Forward Voltage per element @IF=1.0A	V _{FM}	0.55	V
	T _{yp}	0.50	
Peak Reverse Current @T _A =25°C At Rated DC Blocking Voltage @T _A =100 °C	I _R	0.1	mA
		10	
Typical Junction Capacitance (Note 1)	C _J	35	pF
Typical Thermal Resistance	R _{θJA}	65	°C/W
Operating junction temperature range	T _J , T _{STG}	-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

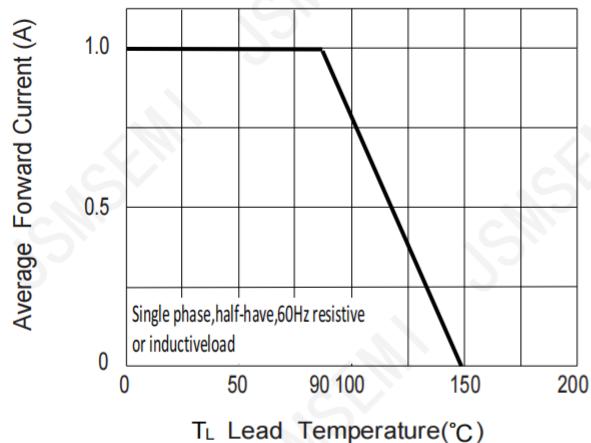


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

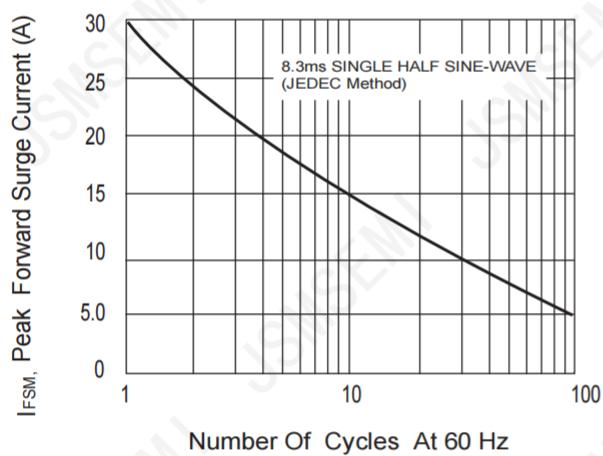


Fig.5 Typical Capacitance

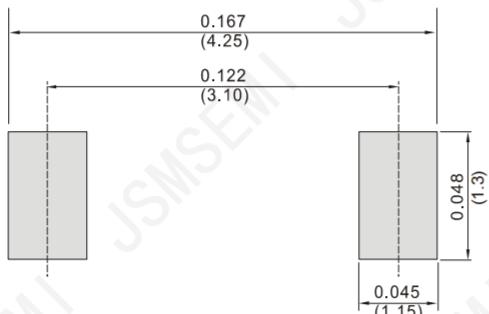


Fig. 2 Typical Instantaneous Forward Characteristics

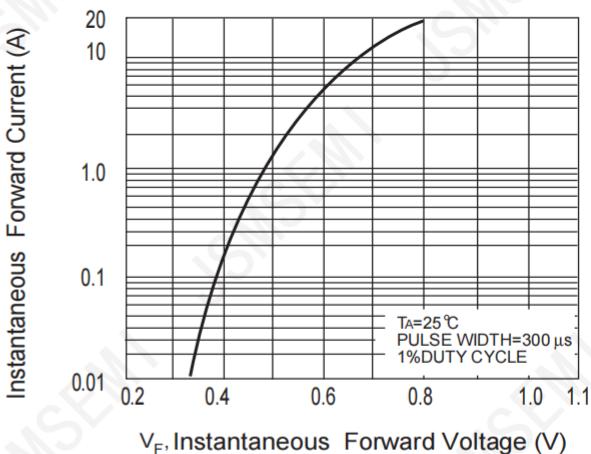
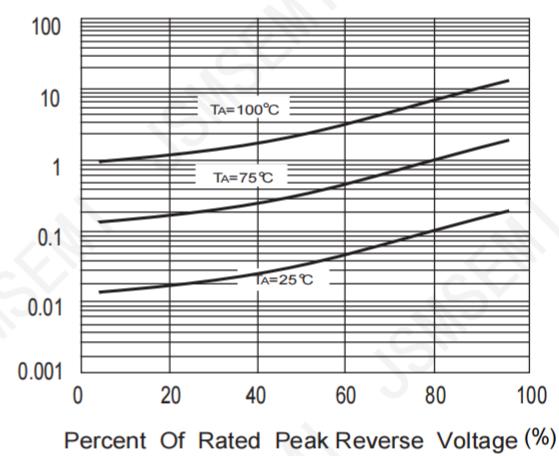
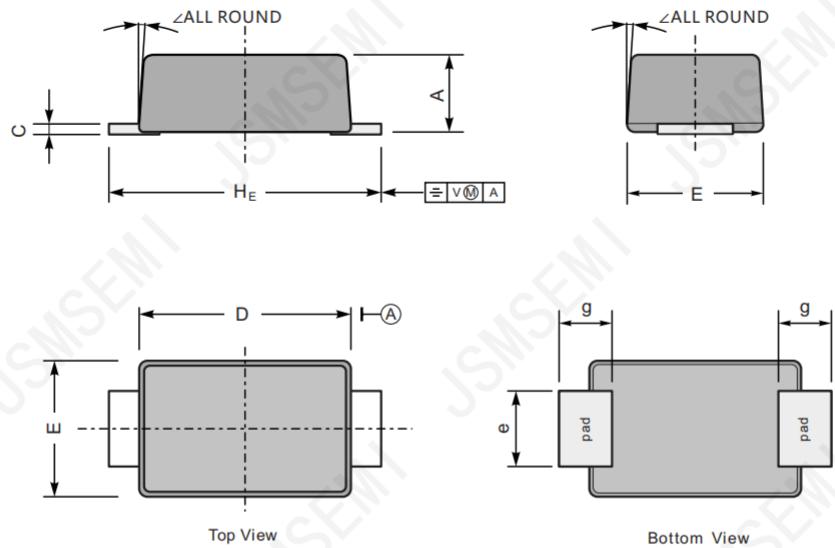


Fig.4 Typical Reverse Characteristics



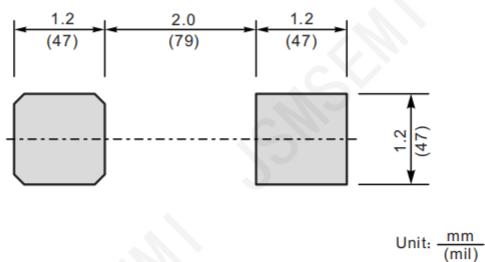
Package Information

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	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°
	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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