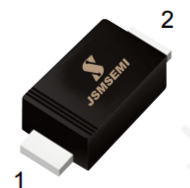


Features

- Easy pick and place
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency



SOD-123FL

Mechanical Data

- Case: SOD-123FL

Pinning

PIN	DESCRIPTION
1	Cathode
2	Anode

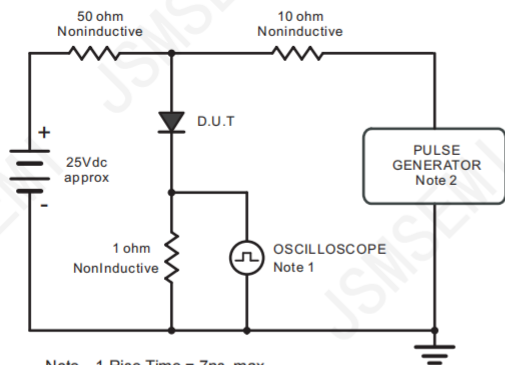
Absolute Maximum Ratings and Characteristics

Parameter	Symbols	PNS40010ER,115-JSM	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Maximum Forward Voltage at 1 A	V_F	1.68	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5 100	μA
Typical Junction Capacitance at $V_R = 4\text{V}$, $f = 1\text{MHz}$	C_j	15	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35	ns
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	85	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ\text{C}$

(1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
 Input Impedance = 1megohm, 22pF.
 2. Rise Time = 10ns, max.
 Source Impedance = 50 ohms.

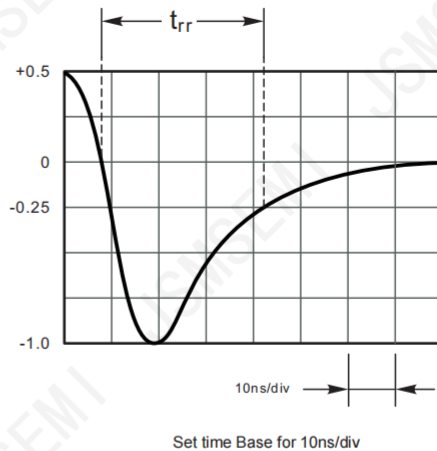


Fig.2 Maximum Average Forward Current Rating

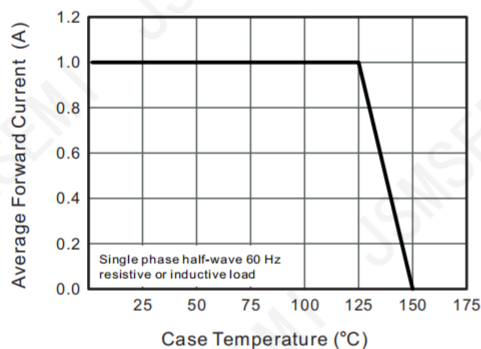


Fig.4 Typical Forward Characteristics

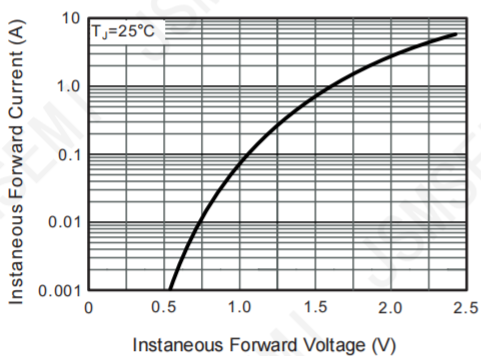


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

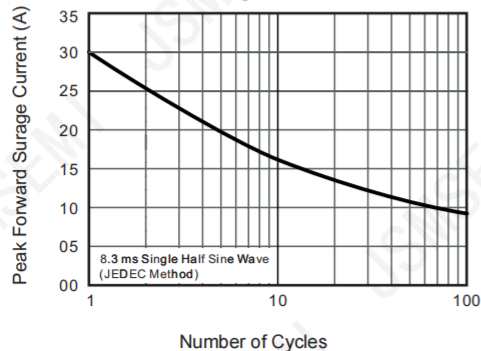


Fig.3 Typical Reverse Characteristics

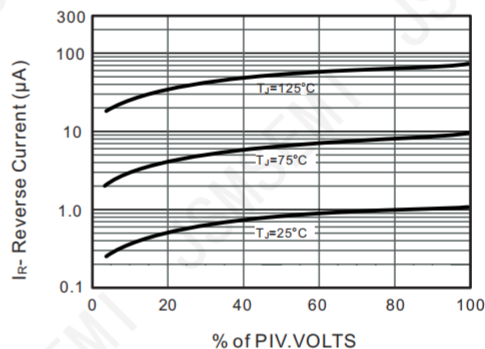
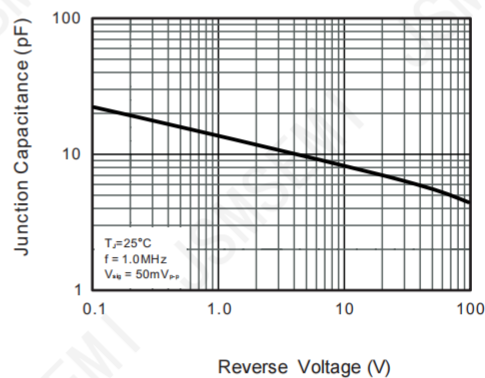


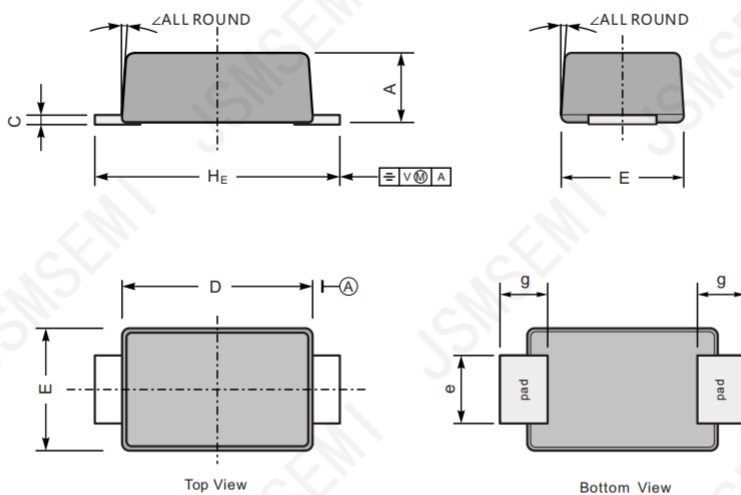
Fig.5 Typical Junction Capacitance



Package Outline

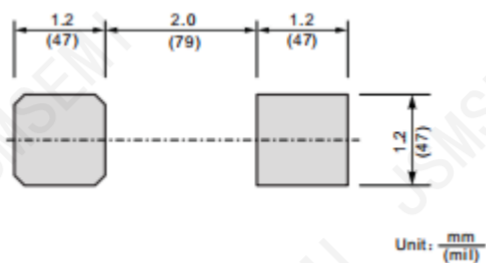
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	\angle
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	
	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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