

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 $T_c = 125^\circ C$	$I_{F(AV)}$	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 $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	I_R	5 100	μA
Typical Junction Capacitance at $V_R = 4V$, $f = 1MHz$	C_J	15	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	35	ns
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	85	$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	$^\circ C$

(1) Measured with $IF = 0.5 A$, $IR = 1 A$, $Irr = 0.25 A$.

(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

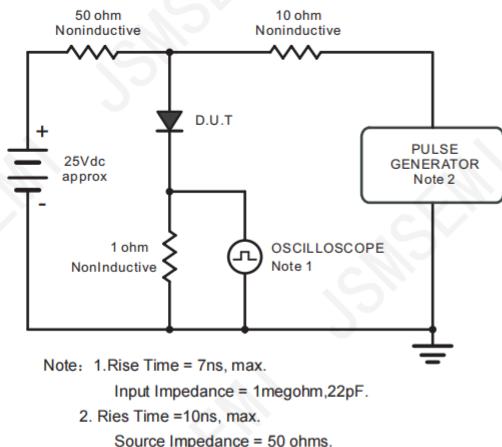


Fig.2 Maximum Average Forward Current Rating

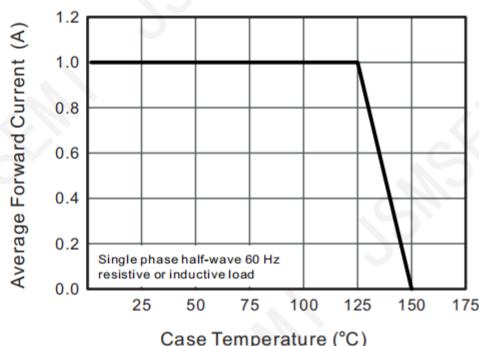


Fig.4 Typical Forward Characteristics

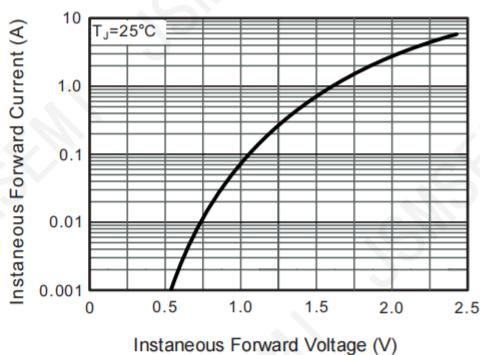


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

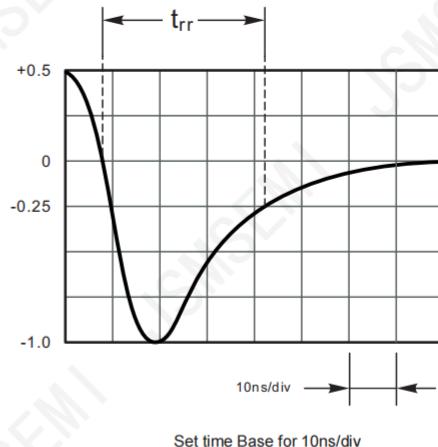
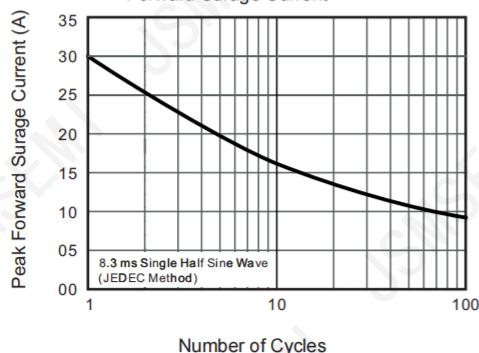


Fig.3 Typical Reverse Characteristics

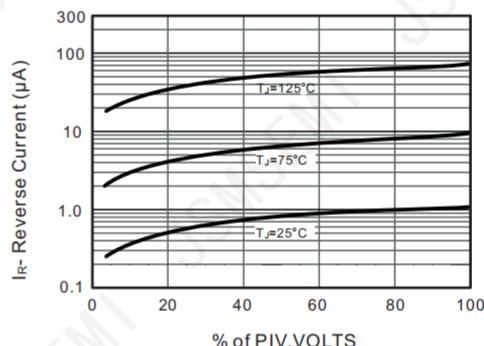
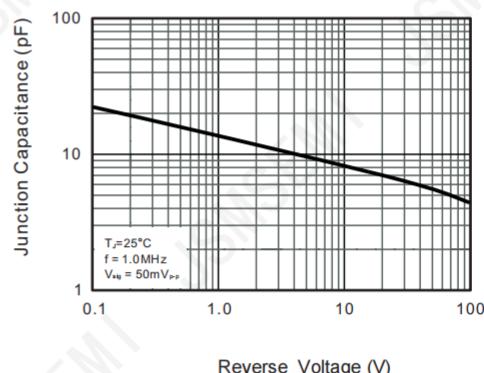


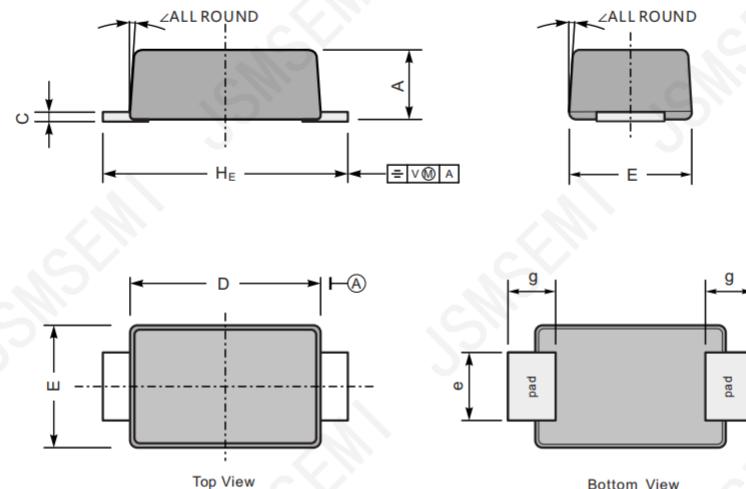
Fig.5 Typical Junction Capacitance



Package Outline

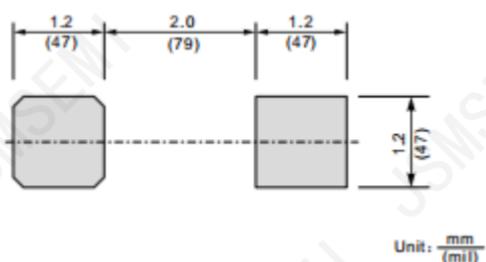
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
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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